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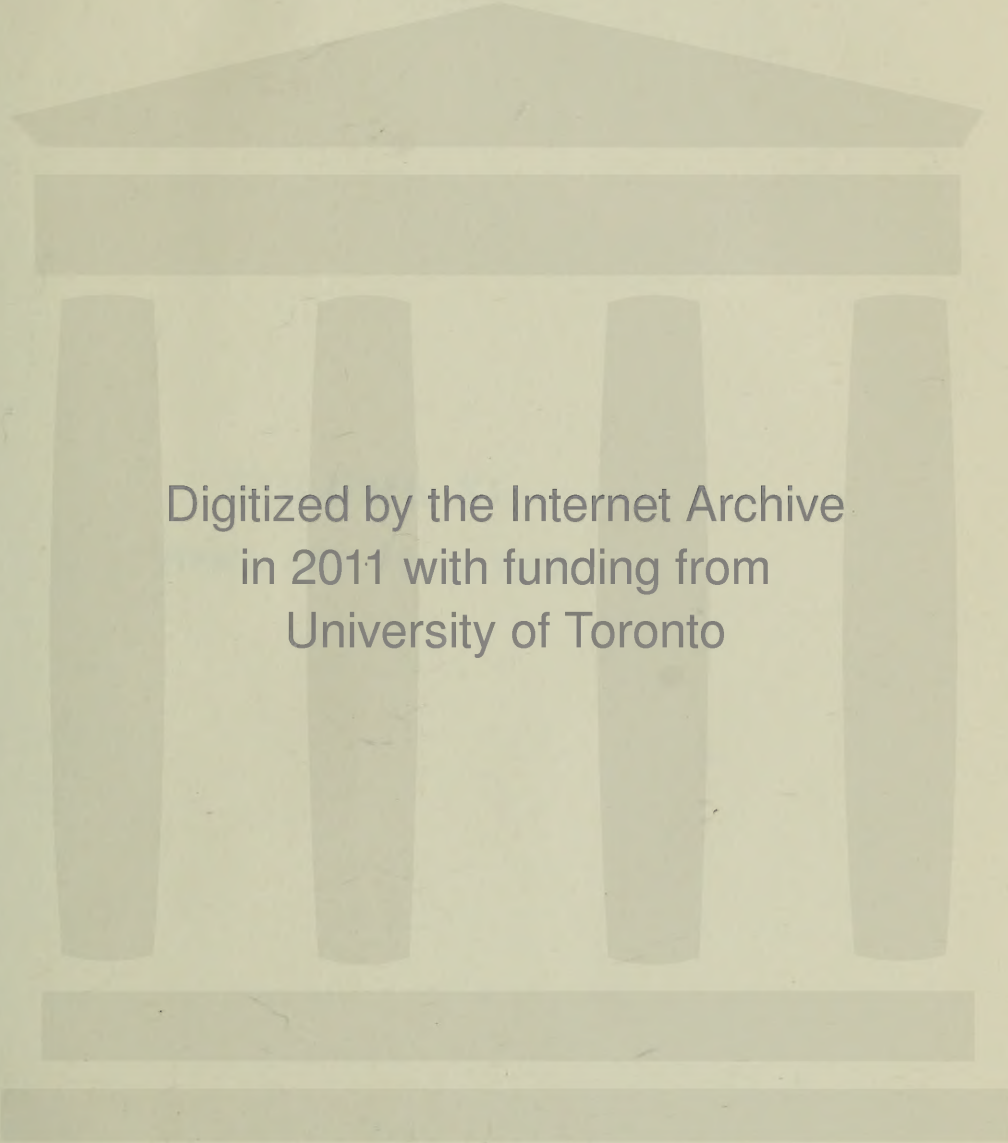












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# THE INTERNATIONAL QUARTERLY

*April*

M D C C C C V

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## THE GODS OF WAR

MAURICE MAETERLINCK

*Translated by Alfred Sutro.*

THE fearful struggle which has been going on out yonder, at the other end of the world, holds more than one surprise in store. For the first time since the origin of history, entirely new forces are taking the place of men on the battlefield; forces that, mature at last, have definitely emerged from their long experimental period. Until this war (I leave out of count that of the Transvaal, which was incomplete, and too unequal) they still hung in the balance—held themselves aloof, and only acted from afar. They were reluctant to assert themselves; and there was still some connection between their mysterious action and the work of our hands. The range of the gun was not greater than that of our eye; and the destructive energy of the most murderous cannon, the most formidable explosive, still preserved human proportions. To-day we are overwhelmed, our reign is ended; and behold us, as so many grains of sand, at the mercy of the monstrous and enigmatic power whose aid we have dared to invoke.

It is true that the part played by man in battle was never preponderating or decisive. Already in the days of Homer the divinities of Olympus mingled with mortals on the plains of Troy;

and, wrapped in their silvery cloud, which rendered them invisible without hampering their action, protected, dominated or struck terror into the warriors. But these divinities had limited power, and a limited mystery. Their intervention, although superhuman, still reflected the form and psychology of man. Their secrets revolved in the narrow orbit of our own secrets. The heaven from which they issued was the heaven of our conception; their passions, their sorrows, their thoughts, were little loftier or purer than our own. Then, as man developed, as illusion fell from him, as his consciousness increased and the world stood more plainly revealed, the gods that went with him became greater, although more distant; mightier, though more obscure. With his increase of knowledge and comprehension, the flood of the unknown invaded his domain. As he organized and extended his armies, perfected his weapons, and with his youthful science mastered natural forces, so do we find the fortune of battle ignoring the captain and heeding only the group of undecipherable laws we term chance, or hazard, or destiny. Consider, for instance, the admirable picture, so palpably true to life, that Tolstoi draws of the battle of Borodino or the Moskowa, a type of one of the great battles of the Empire. The two chiefs, Koutouzof and Napoleon, are so far away from the scene that they control only the most insignificant details; they know nothing of what is happening. Koutouzof, like the good Slavonic fatalist he is, is aware of "the force of circumstance." Sprawling on a bench, over which a carpet has been spread, the unwieldy, one-eyed Russian drowsily awaits the result, giving no orders, content to say yes or no to the suggestions that reach him. Napoleon, on the other hand, believes himself able to govern events of which he is not even the witness. On the night before, he had dictated the arrangements of the battle; and, from the very first onslaught, owing to that very "force of circumstance" to which Koutouzof pins his faith, not one of these arrangements were, or could have been, carried into effect. But he clings none the less to the imaginary plan that reality has shattered; he conceives he is issuing orders, whereas he in truth is merely following, and that too late, the mandates of chance that everywhere arrive in advance of his haggard, hysterical messengers. And the



battle pursues the course that nature has traced for it, like the river that flows on its way without heeding the cries of men on its banks.

And yet Napoleon, of all the generals of our later wars, remains the only one who preserved the semblance of human direction. The external forces which seconded, and already dominated, the efforts of his troops, were still in their cradle. But, in our day, what could he do? Would he be able to recapture a one-hundredth part of the influence he was able to wield on the fate of battles? For to-day the children of mystery have emerged from childhood; the gods are others who press on our ranks, break our lines and scatter our squadrons, sink our ships and rock our fortresses. These gods have no longer a human shape; they issue from primitive chaos, far beyond the home of their predecessors; and all their laws, their power, their intentions, must be sought outside the circle of our own life, on the other face of our intelligent sphere, in a world that is closely sealed, the world most hostile of all to the destinies of our species, the raw, formless world of inert matter. It is to this blind and frightful unknown, which has nothing in common with us, which obeys impulses and commands as incomprehensible as those which govern the most fabulously distant stars—it is to this impenetrable, irresistible energy that we confide the exclusive attribute of what is highest in the form of life that we are alone to represent in this world; it is to these undefinable monsters that we intrust the almost divine mission of establishing the right, and separating the just from the unjust.

What are the powers to which we have thus abandoned our most specific privilege? I think at times of a man whose eyes should be able to discern what is floating around us, able to distinguish all the population of this ether that our glances assure us is transparent and empty, even as the blind, did other senses not undeceive them, might hold the darkness to be empty that fastens upon their brow. Suppose such a man to pierce the quicksilver of this sphere of crystal that we inhabit, and that reflects to us only our own face, our own gestures and thoughts. Imagine that, one day, passing beyond the appearances that imprison us, we at-

tain at last the essential realities; and that the invisible which confines us, fells us and lifts us, ordains our retreat, our pause and advance, were suddenly to strip the covering from the immense, must inevitably be borne by the phenomena and laws of nature the awful, inconceivable images that, in some hollow of space, whose playthings we are. Nor should this be regarded merely as a poet's dream; it is now that we dream, when we tell ourselves that these laws have neither face nor form, when we forget so readily their omnipotence and indefatigable presence; we dream the puny dream of human illusion, whereas then we should enter the eternal truth of the life without limit in which our own life is bathed. The spectacle would be appalling: it would be a revelation that would terrify all human energy, paralyze it at the roots of its nothingness. Consider, for instance, among the many illusory triumphs of our blindness, two fleets that prepare for battle. A few thousand men, as imperceptible, as helpless, in their relation to the forces they bring into play as a pinch of ants in a virgin forest—a few thousand men flatter themselves that they have enslaved, turned to their purpose, to serve an idea entirely foreign to the universe, the most immeasurable and most dangerous of its laws. Try to provide those laws with an aspect, a physiognomy, proportionate and appropriate to their power and functions! And if you are afraid to let your mind dwell on what is impossible and unimaginable, leave out of count the profoundest, the most august of these laws, that of gravitation, which the ships obey as well as the sea that bears them, and the earth that bears the sea, and the planets that support the earth. You would have to seek so far, in such solitudes, such infinities, beyond such stars, for the elements that compose it, that the wildest dream would pause in helplessness, nor the whole universe suffice to lend a mask.

Let us, therefore, consider those laws alone that are more limited—if there be any that have limits; those that are nearer to us—if there be any that are near. The laws, for instance, that those ships imagine to be submissively confined in their flanks; the laws we regard as especially docile, and the daughters of our achievement. What monstrous form, what gigantic shadow, shall



we attribute to the power of explosives—those recent and supreme gods, who have just dethroned, in the temples of war, all the gods of the past? With what family of terrors, what unforeseen group of mysteries, shall we connect them? Melinite, dynamite, pancastite, cordite and roburite, lyddite and balastite—oh, ye indescribable spectres, by whose side the old black powder, that struck terror into our fathers, nay, even the mighty thunderbolt, once held the most awful symbol of divine anger, become mere gossipy, good-natured old women, a little quick with the blow, perhaps, but almost inoffensive, almost maternal—of your countless secrets not even the most superficial has been laid bare; and the chemist who composes your slumber is as ignorant as the engineer or artilleryman who awakes you, of your nature, your origin, your soul, the springs of your incredible bound, or the eternal laws which you so suddenly obey. Are you the revolt of things imprisoned since the beginning of time; are you the gleaming transfiguration of death, the awful gladness of palpitating void; are you eruption of hatred or excess of joy? Are you a new form of life, and so ardent that you consume in a second the patience of twenty centuries? Are you a flame from the enigma of the worlds, that has found a fissure in the walls of silence that enclose it? Are you an audacious loan from the reserve of energy that supports our earth in space? Do you, for that wild leap of yours towards a new destiny, gather up, in the twinkling of an eye, all that has been stored, all that has been gathered and prepared, in the secret of oceans, rocks, and mountains? Are you soul, or matter, or a third state still unknown? Whence do you derive your destructive passion; where do you rest the lever that splits a continent; whence does the impetus depart that exceeds the zone of the stars where the earth, your mother, exercises her will? To all these questions the man of science who creates you will reply gravely that “your force is due to the sudden production of a great volume of gas in a space too confined to contain it beneath the atmospheric pressure.” All is explained now—all becomes clear. We attain at once the very depths of truth; and here, as in all things, know exactly how matters stand.

## THE WHITE MAN'S BURDEN AT HOME

SYDNEY OLIVIER

A FEW years ago Mr. Rudyard Kipling urged on the hunt of Anglo-Saxon Imperialism with the lyrical exhortation that America should take up the White Man's Burden. The more outward and visible interests of this new Pilgrim's Progress of Christian nations at the moment of the poet's afflatus appeared to be concerned in the employment of acclimatized peoples who would work for the white investor in tropical mines and forests, and purchase his domestic manufactures with their wages. It is the acknowledged theory of this school of commercial Imperialism to which the world owes so much of its more exciting colonial history that the elevation of conquered races, especially African races, must necessarily proceed by the method of compulsory labor. This theory is coeval with the very beginnings of negro slavery in the Western world. It was used by the Christian church as an apology for the trade. The African was to enjoy the opportunity of salvation in exchange for his degraded freedom; nay, more, the mild Arawak of the Antilles was to be saved, by this more robust substitute, from the extinction with which his own share in this education under Spain appeared (not illusorily as it proved) to threaten him. The theory was in such strong vogue at this time in Imperialist circles that Earl Grey, the Administrator of the British South Africa Company's territories, propounded at shareholders' meetings a policy of penal taxation to be enforced against all adult male natives who did not work three months of the year in the Company's mines. We remember, too, Mr. Chamberlain's eloquent plea for the release of the groaning Kaffir from the tyranny of the Boer sjambok to the glorious liberty of the Johannesburg mining compound. Mr. Chamberlain, since the war, has explained that he was mistaken about the Boer treatment of Kaffirs, and anon we find that Chinese are preferred in the compounds. Very little is now heard of the Burden in South Africa; though one Bishop recently detected a faint silhouette of it in the Christian privileges made available to the indentured Chinaman. Yes, the Britons are always quite pre-



pared to believe in the Burden. I suppose that there are some Americans who also believe in it.

It has been the lot of the writer who, for simplicity's sake, will speak henceforth in the first person, to be concerned for a period of nearly twenty years in the administration of the British West Indian Colonies, where the greater part of the population is descended from African slaves and is still very largely of the pure negro race. I have resided in, or have visited, all the British West Indian colonies excepting the Bahamas and Bermuda, and including British Guiana and British Honduras. In several of the colonies I have been officially employed for lengthened periods, and in Jamaica, which I consider to be very highly developed in the typical conditions of a West Indian community, I have occupied during the past five years the positions of Colonial Secretary and from time to time Governor of the Island. In the course of the last fourteen years I have made several visits to the United States; and I have necessarily, in connection with educational and social questions in Jamaica, paid attention to recent developments affecting the colored population of the Republic, and to the tendencies of public opinion, so far as they could be gathered from the press, in matters concerning that population. I have found myself sharply impressed, both in these experiences and in talks with Americans abroad or at home, with what have appeared to me exaggerated and ill-founded apprehensions of the dangers and difficulties necessarily implicit in a mixed community predominantly of colored folk, apprehensions which scarcely, if at all, affect or disquiet us in the Colonies. Visitors from England as well as from America have frequently asked me how we of Jamaica confront this or that problem or difficulty connected with the intermixture of races which is causing or threatening perplexity in the United States. On such occasions I have found myself, as a British West Indian, unable to account for an attitude of mind toward the race question which impressed me as superstitious if not hysterical, and which would appear from the tone of the Southern press to prevail widely in America. Without any intention or disposition to condemn presumptuously what appears to be the predominant attitude of the white towards the negro

in the Southern States, I shall try to explain in what important respects the attitude of the white towards the colored and their social relations is different in the British West Indies.

I shall speak of the conditions prevailing in Jamaica because with them I am best acquainted, and, moreover, they belong to the island which is often visited by Americans, and is nearest to their hand for purposes of comparative study. Any visitor, and we have many visitors every year from the United States and shall doubtless have more, may verify for himself the impressions which I here record.

In all the British West Indies the colored and black population enormously outnumber the white, and the social and industrial conditions vary considerably in the different colonies. In the islands where the sugar industry survives as the principal support of the community the land is generally held in large estates, and it is on these estates that the laboring population is principally employed. This is especially the case in Barbados, Antigua, and St. Kitt's. In the more important colonies of Trinidad and Demerara the labor supply is provided for the most part by East Indian coolies, who are imported, like the Chinese in the Transvaal, under indenture. The bulk of the negro population is settled, as in St. Vincent, Grenada, Dominica, Montserrat and Nevis, under conditions more nearly approaching those established in Jamaica, that is to say, as a peasant proprietary not primarily dependent upon wage-employment, but supplying a more or less uncertain amount of labor available for the larger plantations. Setting Barbados apart, as a unique community, the far future of which it would be exceedingly difficult to forecast, Jamaica may be taken as the type of what the ordinary British West India Colony is destined to become. There are many large estates producing fruit, sugar, coffee, cocoa, cattle and horsekind, which are owned for the most part by the whites and are under their direction. But the greater part of the population is black, with little admixture of white blood.

The majority of this class are peasant proprietors, although in some districts there are many who are still employed on sugar estates and do not own land in fee simple. But when they are not



land-owners they almost invariably rent land, and depend largely for their maintenance upon its produce. The numbers of this class amount to about 700,000, and there are between 90,000 and 100,000 small holdings in their possession, the acreage varying from one to fifty or one hundred acres.

There is a considerable colored class of mixed African and European descent, and these largely supply the artisans and tradesmen of the community. Very many of them are land-owners and planters, very many are overseers and bookkeepers on estates, others clerk in commercial businesses, and a considerable number are engaged in the professions of law and medicine, or hold responsible posts in the public service. Many of the clergy of all the Protestant denominations are drawn from this class. A Jamaican of mixed race is not barred from occupying a position in any department of the social life of the island, including the public service, for which he is qualified. Many colored men are magistrates of Petty Sessions, more than one are Custodes, that is to say, chief magistrates of their parishes; several hold or have held important judicial positions under the Government. According to their professional position they associate with the white residents on precisely the same terms as persons of pure European extraction, and the same would be the case with any person of pure African blood who should rise to a like position. In practice it is the rule that the pure negro does not show the capacity and ambition of the man of mixed race, and there are consequently few persons of pure African extraction in positions of high consideration, authority or responsibility.

I would not be understood to assert that there is no color prejudice in Jamaica, or in any other British West Indian colony, and that in the minds of domiciled Europeans there is nothing answering to the hostility and contempt towards black and colored people which is exhibited by many spokesmen of white folk in Southern States of America. Such prejudice, however, does not appear on the surface, and it is unquestionably diminishing. The late Mr. Grant Allen's novel, "In All Shades," depicting his impressions of color-prejudice in Jamaica as remembered from thirty or forty years ago, reads to-day like a grotesque extravaganza, and it might well

have been imagined by a writer who had never been in the island, but who had read into its society the sentiments which are alive to-day in the Southern States.

I have found that the first criticism which my American friends usually pass upon the conditions which they find prevailing in Jamaica is ultimately concerned with their apprehensions of intermarriage and the further blending of race. It always comes down to this:—If white folk will permit men and women of colored extraction to meet and associate with them and with the members of their families on terms of social equality, intermarriage will inevitably result; and especially is this likely to be the case in communities where there is a large class of poor whites. The poor white man will very readily marry the fair colored woman in better circumstances, and she will always be strongly disposed to accept him. The poor white young woman will be under strong inducement to marry the well-to-do young colored man, and the result is an increasing intermixture which will be fatal to our race and society.

Now it is the fact that the circumstances of Jamaica are different from those of the Southern States, in that we have practically no poor white class, or only a very small poor white class. White and light-colored people are settled here and there in the island, who are the survivors or descendants of immigrants introduced in colonization experiments; some are of Irish and others of Dutch or German origin. These people have generally intermarried with colored Jamaicans. I myself am unable to recognize that any sort of evil has resulted from their intermarriage; I should rather say the contrary. Jamaica is not a suitable country for the settlement of white men as peasant cultivators or field laborers, and if they attempt to live there under those conditions they deteriorate into a class which is in no respect very markedly superior to the colored man in a like environment, and in many respects they are less desirable as citizens. Under special conditions, even in the West Indies, intermarriage may not take place. For example, in Barbados there is a class of poor whites who have remained for generations without intermixture and are said to have a strong racial prejudice against it. This prejudice doubtless



owes its effectual stringency to the fact that these poor Barbadian whites represent early settlements of substantial numbers that were installed for generations in an island where there was no free colored class analogous to the "small settlers" of Jamaica. Barbados was and may now be styled a "close" island. All the land was owned in estates which were not broken up, and before emancipation almost all of the laboring class was the property of the estate-owners and not available for outside breeding. Moreover, in Jamaica and in other West Indian colonies, although socially and professionally there may be no barrier against intermixture, there may very well be, and beyond all question there is, an aversion on the part of white creoles to intermarry with colored families; and this aversion may, I think, be relied on, at any rate for a long time to come, to check in practice any such obliteration of race distinction as is forboded by negrophobists in the United States.

It is true that in these colonies you will occasionally find creoles of mixed race and of good positions who are married to ladies of pure European blood, and as a rule such marriages will not have been made in the colony, but in England. Again, you will find gentlemen of pure European extraction with creole wives of mixed race, who are not easily identified as such, nor do they wish to be so identified. Moreover, in the lower social ranks of employees in stores, so far as they are recruited from Europe, such mixed marriages may frequently be met with.

On the whole, however, it does not appear to me that social and professional equality between the two races, when resulting from compatibility of temperament and interests, conduces necessarily or strongly to a likelihood of intermarriage,—to frequent, habitual and unhesitating intermarriage. But even if it should do so, and admitting that it may tend to do so, I could not justify the tolerance I find in America of almost any kind of iniquity or atrocity that would seem to avert or oppose this tendency. The more reasonable and temperate exclusionists appeal to a theory, alleged to be established by observation, that the mixed race is necessarily degenerate, deficient and decadent, both in physique

and morals. But the more common thesis is, nakedly, that because the colored man is, by hypothesis genetically incompatible—an inferior animal—he therefore must not be conceded equality in any neutral category.

I have to say for myself that I began my connection with the West Indies under the prejudice of this common theory of the degeneracy of the offspring of interbreeding, but I have found it impossible to establish any judgment in support of such a sweeping generalization. The effects of a first cross are no doubt constitutionally disturbing, and many persons of mixed origin are of poor physique. But the phthisis and other diseases from which they suffer are equally common among the negroes of apparently pure African blood, and arise among them from the overcrowding of dwellings, bad nutrition, insanitary habits, and other preventable causes. There naturally may be an aversion and a strong social objection to the marriage of the white woman with a black or colored man. There is no correspondingly strong aversion or objection to the marriage of a white man with a woman of mixed descent. This kind of union is much more likely to occur than the former. There is good biological reason for this distinction. Whatever the potentialities of the African stock, and I myself believe them to be, like those of the Russian people, exceedingly important and valuable, the white races are in truth further advanced in co-ordinated human development and their maternity must be economized to the utmost. A woman may be the mother of a limited number of children, and our notion of the number of children is contracting; it is bad natural economy, and instinct very potently opposes breeding backwards from her. A polygamous man may be the father of many children: the "great wife" of the patriarchal or pastoral household will be the mother of the tribal stock: the offspring of the slaves or subordinate wives are accounted, and generally with reason, superior to their mothers. I say as a rule, because notwithstanding all that it may be possible to adduce in justification of that prejudice against the mixed race of which I have spoken, and which I myself fully shared, I consider that this class of mixed race is a valuable and indispensable part of any West Indian community, and that a colony of black,



colored and whites has far more organic efficiency and far more promise in it than a colony of black and white alone. A community of white and black alone will remain, so far as the unofficial classes are concerned, a community of employers and serfs, concessionaires and tributaries, with, at best, a bureaucracy to keep the peace between them and attend to the nice adjustment of this Burden.

The graded mixed class in Jamaica helps to make an organic whole of the community and saves it from this distinct cleavage. The status of such a mixed community among human societies may not be high (you have such a community in the Southern States), but, whatever the undesirable characteristic, moral or physical, which may be accentuated by interbreeding, it is certain that from the point of view of social vitality and efficiency the mixed colored class is not decadent in Jamaica. Assuming, therefore, that we have the accomplished fact of a mixed community with us, I cannot, in the light of British West Indian conditions, admit the axiom that interbreeding is necessarily an evil. I think that when we have such a community we should make up our mind not only to put up with the illicit interbreeding that we shall almost certainly have, but to make our account for a certain amount of legitimate and honorable interbreeding, and to look upon it not as an evil but as an advantage. We need not be much afraid that the persons the race purity of whose offspring it is essential that the nation maintain are going to plunge into a cataract of mixed matrimony. Such a development is not for a moment probable.

In view of the undeniable difficulties of the color question in the United States, I cannot ignore the fact that the colored people in the several British West Indian colonies offer varying aspects of character, disposition and promise of development, and that obviously the American colored section must have their own local characteristics; and, furthermore, the political conditions under which the African stock has developed during the past forty years in the United States are very different from those which have obtained in Jamaica or any other British colony. Emancipation in the West Indies preceded that revolution in the United States by a period of a generation, and the political conditions into which

the emancipated negroes passed were very different. They did not receive, in fact or in name, direct political power. This was limited by a substantial property test. The industrial and economic results of emancipation in Jamaica were far-reaching, but there was no great political revolution, and there was not created a vast new class of citizens who were allowed to enjoy the franchise without being qualified for its responsible or efficient exercise. In administrative matters there was continuity of government controlled by humane and reasonable principles, and when the defects of the island's judicial system produced the so-called rebellion of 1865, there resulted a benevolent despotism of Crown Government, under an experienced Indian statesman of great ability and force of character, Sir John Peter Grant. Crown Colony government acknowledged no presumption that the negro, or indeed any other class of citizens in a West Indian community, had a natural or indefensible right to the franchise. It placed an almost autocratic power in the hands of the Governor and rendered his administration much more amenable to the control of British public opinion than a local white oligarchy possibly could be.

Since the establishment of Crown Government in Jamaica (now modified by an election element in the Legislature) it may safely be said that the black population as a class of the body politic have had no acute grievance. The government of the island has been constantly administered with a full regard to their rights and their interests, but with firm repression of any disorderly tendencies on their part. In the United States these conditions have been markedly absent. Political power was conferred on great masses of the emancipated slaves; their ignorance, their incapacity, their vanity, and their cupidity were appealed to by political adventurers, and the exercise of their political power became necessarily a matter of apprehension to the class hitherto their masters and rulers. The situation was not met, it could not be met under the American constitution in the manner in which it was dealt with in the British Colonies. The political danger was apprehended, and the social irregularities of the colored population were met and fought by underhand and unjust methods. In political matters the constitution is strained and the voting system openly



jockeyed and set at nought. In judicial matters resort is had to popular violence and terrorism against the negro. The colored population not only has an ostensible grievance, but it is continually made to feel that grievance with increasing acuteness. The colored folk advance in intelligence and critical power and they cannot but see these things more and more clearly. The tendency of the Southern press and of Southern public men is to urge their progressive exclusion from equal consideration in politics or in law.

I do not think this will be denied by any American. I could quote plenty of evidence from press articles and from the speeches of public men in high position which came under my notice last October when I was passing through the country. Mr. Roosevelt was threatened with losing votes as far north as Maryland, not only because of the Booker Washington "luncheon" outrage, but because it was alleged that during a Republican administration there was a tendency on the part of the colored population to assume a saucy attitude, which a Democratic administration did not equally encourage. The saucy attitude, so I have learned, means that the negro was more disposed to assume, under a Republican administration, that he was a human being like the white man, whereas (strange interpretation of the idea of Democracy) it was essential that he should be made to accept the fact that his race, or any admixture of such race, renders him essentially and permanently inferior to white Americans of whatever extraction or culture. This is a mild presentation of the theory kept standing in type in some newspaper offices. I do not question but that circumstances in the United States may have produced qualities in the black or colored person different from those produced by the conditions in Jamaica. Impudence—sauciness—is an offensive human quality, and it exists largely among the city populations of all white races. Nature has liberally endowed the African with impudence, and it is possible that that faculty has been more offensively developed by the political conditions in the United States than by those in the West Indies. If it be so it is a grievous fault. The impudent person, colored or white, should be sat upon and kept in his place. It is probable, I think, that in any community where one class is treated by another with injustice, political and judicial, the ill-conditioned

members of that class will retaliate with impudence. It was the recognized holiday privilege of the Roman slave.

In Jamaica the black or colored are not impudent to the white unless they are provoked by bad manners and unwarrantable pretensions. Any man or woman who addresses a native Jamaican with reasonable civility and without condescension or assumption—that is to say, in a rational and proper human manner—will find himself outrun in nine cases out of ten by the natural and kindly courtesy and good-will of the reply and reception which he will receive. Yet the Jamaican has enough fundamental independence of spirit to resent an uncivil or overbearing address, and such resentment in the uneducated or uncouth person will naturally exhibit itself in impudence or sauciness. In any competition of offensiveness and bad manners the sensitiveness and quick wit of the African tend to give him a decided advantage. Apart from these circumstances, the manners, even of the town population, are far better than those with which one is accustomed in most places of European resort. The good manners of the African race as exhibited and experienced in Jamaica are a very valuable social quality, and it would be a great loss to the community of the United States if such a quality should be destroyed by social antagonism.

The typical excess of the negrophobist tendency in the United States is exhibited in the lynching and torturing of colored persons convicted, accused or suspected of crime; or even on less tangible pretexts or provocations. I do not desire to criticise these extravagances on the score of their special atrocity as methods of social discipline. The normal processes of criminal law are themselves a nightmare of insane and degrading futility. In a few special cases there may be some justification of this method of personal violence, and yet, on the whole, it is unquestionably a pestilent method. It fosters the habit of personal brutality, it establishes the injustice of the right of the stronger, it nourishes all the lusts of cruelty, it breeds an incontinence of judgment, it sanctifies the most furious prejudices, it burrows through the body of Society with poisonous arteries of revenge. Lynch law and mob torture are no more likely to survive as methods of crime repression among



white people in the United States than in other civilized communities where settlement has submerged the exigencies of pioneer life. But they are publicly approved as methods for dealing with offences committed by the colored against the white, and notably for offences against the person. In the last resort they will commonly be defended and often advocated as a punishment for and deterrent against criminal assaults upon white women or children by colored men. Here, again, I must admit, at the outset, that we come within a region of sentiment where many persons may be met with who would advocate these methods for punishing such offenders without regard to race. The impulse to immediate personal violence and the infliction of destructive bodily suffering upon the offender is natural and ineradicable. It is dormant in every man, and when children are assaulted, in every woman.

"We must protect our women": that is the formula. The statistics show that by far the greatest proportion of the lynchings follow cases of murder or complicity in murder, and that only about 20 per cent. are on account of criminal assault or attempts at such assault. This plea therefore really covers but a small part of the ground; but in as much as it is the last entrenchment of those who advocate differentiation against the negro, and also appeals to the sentiment which would countenance social injustice in order to protect "social equality," it is important to examine this plea in the light of social experience in British West Indian colonies.

Two questions will at once suggest themselves to a visitor from Jamaica. Are women in more special danger of molestation from black ruffians than from white; and are special methods expedient for repressing criminal tendencies in the colored as distinct from the white?

These questions will, I say, present themselves; because the fact is that in the British West Indies assaults by black or colored men on white women or children are practically unknown. I say this as an administrator familiar with the judicial statistics, as a resident familiar with all parts of Jamaica and all classes of its population, as the head of a household of women and girls who have frequented the suburbs of Kingston and lived for weeks and

months in remote country districts with neither myself nor any other white man within call. Any resident in Jamaica will tell the same story. A young white woman can walk alone in the hills or to Kingston, in daylight or dark, through populous settlements of exclusively black and colored folk, without encountering anything but friendly salutation from man or woman. Ladies walking or riding alone experience much more rudeness and offensive behavior in England. The only terror of Jamaica highways and byways (and that is a rare one) are "de white sailor dem"—wastrel runaways from European vessels. Single ladies may hire a carriage and drive all over the island without trouble or molestation. Offences against women and children come into the courts: but they are not against white women and children. Whatever may be the cause, it is the indisputable fact that Jamaica or any other West Indian island is as safe a place for women and girls to go about in as is any European country with which I am acquainted. There have been no savage punishments here, no terrorism, no special laws, no illegal discriminations against the colored. It is clear, then, that any reason which the white people in America may have to fear these assaults cannot be due to a necessary or special propensity of the colored race. The danger is, as I have shown, exaggerated. But assuming that there is an appreciable danger, a danger greater from colored than from white, then why does it not exist in the British West Indies?

I cannot but surmise that the propensity to such assaults is stimulated by the very character of the attitude which the white assumes towards the colored population. There is maintained a constant storm of suggestion to the most imaginative and uncontrollable of passions in an excitable and imaginative race. If we had anything like the same amount of suggestion abroad in the British West Indies I should fear that there would be criminal assaults in something like the same proportion as they occur in the vicious atmospheres of crowded white communities. When a class makes the preposterous and self-damnatory announcement to another, whose women it has continually made the mothers of its own offspring, that it is of an inferior order, there immediately is aroused all the self-assertiveness of the human claim to equality,



which is as fundamental in the African as in any other race. It seems to me that this danger, such as it is, is distinctly increased, if indeed it is not entirely created, by the extreme race-barrier theory and still more by the suggestion of the exaggerated tone of the press and of public discussion. I referred to this exaggeration above; and I must say that it seems to me to be in a measure deliberate on the part of the negrophobist and race-exclusion party in justification of their propaganda.

I have, I think, devoted sufficient attention to what is most commonly argued as the fundamental consideration in the race question of America. I should not dare to assert that the dangers which are apprehended are altogether chimerical. But I give at some length the reasons why this problem is not so acute with us in the West Indies.

The political aspect of this problem is of great importance. There is in the United States not only a democratic political franchise for the National and State Legislatures, but a Civil Service and a Judicial Bench, the appointments to which rest also on the theory of the suffrages of the citizens. We in England should consider an elective civil service and an elective judiciary to be a mistake in constitution building; and this extreme democratic principle is not, in fact, completely followed in the appointments in the United States; but at the worst we should never consider such arrangements to be workable in a community in which the majority of electors were recently emancipated slaves, or even a developed population such as the Jamaica negro peasantry. It is natural and necessary that such a situation should be deemed intolerable by enlightened white citizens in the Southern States of America, and that the provisions of the constitution, being in fact unworkable without disaster under such circumstances, should be evaded by methods constitutionally indefensible and unjust. The form of the constitution, unsuitable for such a society, gives the colored race a permanent plea of injustice and places the white in a permanently false situation of holding, by violent and constitutionally unjust devices, a position which may commend itself as socially expedient and which is proved by the history of the West Indies to be favorable to the development of the colored people.

Such a situation is demoralizing in the extreme, and in order to justify it the minority are almost inevitably compelled to blacken the character of the colored majority, and depreciate their abilities by all kinds of misrepresentations. Such a situation not only foments and stimulates the hysterics which find vent in those exaggerated suggestions of outrageous propensities, in those outbursts of the lust of blood and torture, but it also sets up a social terrorism and obscurantism within the white class which is spreading, as such mob hallucinations tend to spread, into a formula of national patriotism. Just as in this country, five years ago and later, any Englishman or woman who kept a clear head in South African matters was liable to be pelted as a Pro-Boer, and at best was a legitimate butt for public insult, so in America any person within the color belt who ventures to attribute human qualities to a colored person is promptly dubbed a negrophobist (as it were, one enamored of the black man as such). The pressure of the terrorism so exercised by the bullies and cowards who form in seasons of panic the articulate majority of every social community is so great that sane men in America keep silence, or at best half-silence, in the face of an increasing negrophobia which appears to be developing into a national danger.

I believe that negrophobia—unreasoning race-prejudice—instinctive race-prejudice if you will—is a source of danger because I see that a more wholesome and hopeful equilibrium has been attained in other mixed communities by the steadfast exclusion of all theory of race discrimination.

The civilization and morality of the Jamaica negro may not be high, but he is on a much higher level than was his grandfather, the plantation slave, and his great-grandfather, the African savage. The negro in Jamaica has thus far been raised, and a freedom of civic mixture between the races has been made tolerable, by the continuous application of the theory of humanity and equality: equality in the essential sense of an endowment in the Infinite; a share, however obscure and undeveloped it may appear, in the inheritance of what we call Soul. Evangelical Christianity, most democratic of doctrines, and missionary education inspired and sustained by a personal conviction and recognition that whatever



the superficial distinctions there is fundamental identity, and an equal claim of the black with the white to share, according to personal capacity and development, in all the inheritance of humanity, —these forces together have created the conditions most favorable to the uplift of the negro. Emancipation, education, identical justice, perfect equality in the law courts and in the constitution, whatever the law or the constitution might be, take away the sting of race difference; and if there is race inferiority it is not burdened with an artificial handicap.

The negro is now indisputably the equal of the white in categories in which one hundred years ago he would have appeared naturally inferior. All such position and material progress has been made by ignoring the obvious; by willing that there should be light where there seemed to be none; by adopting the methods of the visionary whose kingdom is not of this world, but who is insensately bent in assimilating this world to that Kingdom. The vast transplantation of slavery, the intercourse of white and black, have, in fact, brought about the progress of the colored people. A further advance in the mixed community, can be looked for only where there is a personal recognition and consciousness of equality. Whatever mob prejudices may dictate, statesmen and educated observers cannot fail to recognize that the allegation of inequality, of insuperable race differences and degradation, is a sin against light that cannot fail to aggravate the disorders already distracting the South.

I think it is perfectly clear that I do not for a moment ignore, nor, I trust, underrate the difficulties in the political aspect of the situation. I do not venture to recommend any means for their solution. The recently emancipated slave is not qualified for political self-government under electoral institutions. I go further and say that the Jamaican negro of to-day, after two generations of emancipation, is not qualified for such self-government. A democratic representative constitution based on manhood suffrage would not be for the advantage of any class in any British West Indian community. But when we have property franchises and education tests we work them with absolute fairness between white and black. Such tests are applied in some States of America,

but the exclusion of the white voter, it would seem, cannot be faced. We should face it, if necessary. The average English or Irish voter is not such a perfect political animal that we should impute any saving wisdom to his color. If the average colored man in a particular status cannot be trusted with the franchise under democratic institutions, and it is expedient that his citizenship should be regulated, the parallel disfranchisement of the white must be accepted. The color line is not a rational line, the logic neither of words nor facts will uphold it. If adopted it infallibly aggravates the virus of the color problem. The more it is ignored and forgotten, the more is that virus attenuated. It is quite possible to justify a political generalization—not as a truth, but as a working formula—that it is advisable to restrict the franchise where the majority of the population are negro peasants. But it is not possible, either as a working political formula, or as an anthropological theorem, to justify a generalization that there is any political or human function for which colored persons are disqualified because of their African blood. In various categories of human activity one may maintain that as a rule black and colored folk are not up to the normal standard of the white, and that it is difficult and disheartening to deal with them. As a laborer at day wages, for instance, in the competitive industrial realm, and judged by its standards, the negro is most unsatisfactory. But in other categories he is as liberally endowed as the average white man, not only with sympathetic and valuable human qualities, but with talents and an executive ability for their employment.

The difficulties of the situation are admittedly immense. Limitation of political power might only mean an interested white oligarchy; and that, we know by experience, is fraught with dangers which render its establishment out of the question. In the West Indies the negro has been under control; but it has not been a color-control, nor an interested control in any way. Is it possible to provide such a control in the United States?

The public opinion of the North supporting the principles of the constitution has supplied such an influence hitherto. Will it hold out against the increasing restiveness of the South? My



concern, however, is not with political methods. I am only recording the effect which my own experience has made upon me. My comparison of conditions in the Republic and in the West Indies has brought me to the conviction that no solution of color difficulties can be found except by resolutely turning the back to the color-line and race differentiation theory. American politicians and public men are not Exeter Hall abolitionists, nor Evangelical Christian missionaries. I do not prescribe the formulas and methods of these sects as a remedy. It happened that the religious formulas of the men who laid the foundations for a peaceful development of the mixed community of Jamaica were democratic and humanitarian. No more than this is required in regard to the temperamental attitude. If the race differentiation formula is held to it will doubtless in time bring about civil war. If statesmen face in the contrary direction I do not say that they will immediately attain civil peace, but I believe that they will be traveling the only road towards it.

## THE FUTURE OF POWER

N. S. SHALER

ALL the progressive desires which characterize modern civilization call for an ever-increasing share of energy to be applied to the arts; from an economic point of view it is this feature which most clearly separates the culture of our time from that of the ancients. The Greek of best estate had only the strength of a few domesticated animals and of slaves to help him to his large share in the world's goods. The pauper of our time is incidentally, but most effectively, helped by a retinue of mechanical servants, who give him the profit of perhaps a hundred times as much energy as ever contributed to the welfare of an Athenian gentleman. This change has come about in very modern times, and is now in the fulness of its development; it is evidently to increase to the point when all the sources of power will be utilized to somewhere near their possible capacity, and the individual or the state of the century to come will have success in proportion to the dynamic energy that it commands. Therefore the first question in our effort to forecast the conditions of men concerns the possibilities of increasing the supply of power applicable to the arts.

A glance at the facts shows us that all the dynamic energy at the command of men comes more or less distinctly from the sun. To the idealist's advice, "Hitch your wagon to a star," the practical man might well retort that all our wagons are necessarily tackled to the particular star that does the work of this sphere. All that work, from the trifling share of brain and pen that writes these words to that which sways the winds and sends the waters in their streams, is celestial energy, practically all derived from the sun, which for a time is held upon the earth by the air and set upon the diverse work we behold. We see this the more clearly by the contrasted state of the moon, where for geologic ages there has been no work done because there is no air to entrap the heat and turn it to the varied tasks which it performs here upon the earth.

The energy that is at work upon the surface of the earth, except the trifle from its depths, mostly in volcanic outbreaks,



comes immediately from the sun. The greater part of it is speedily sent forth again into the spaces, a little is for a time detained in the water, which it has lifted into the air, or upon the lands, or mayhap for years in the bodies of animals and plants or, exceptionally, for geologic ages, in the incompletely decayed remains of organic life which are buried in strata. The sources of energy available for mechanical power have to be from one or another of these stores derived from the sun. The most immediate of them, that which is the nearest to the source of power, is the wind; next in order the water, which has been lifted by solar heat to high levels on the land, and is on its gravitational journey back to the seas; then the waves of the sea, a possible, but in an economic sense improbable, source of power; there is the timber of our forests, and, the last in this series, the buried organic remains, which give us access to ancient solar energy in the form of coal, mineral oils and gases. Outside of this field of power derived from the sun, there is another source of some importance to be found in the tides, due mainly to the gravitative attraction of the moon, which promises in time to be locally serviceable to man. We will now glance at these several resources with a view to estimating their prospective utility.

The largest share of solar energy which we have a chance to capture and turn to account in our arts is that embodied in the winds. There is as yet insufficient data for computing the quantity of this power which can possibly be won for our service, but it certainly amounts to very many times as much as is now won from all the other sources now utilized by man. This source of power was the first to be used—at the outset in the sails of boats—but it has as yet afforded little help in the arts. The winds have ground much corn and pumped a deal of water, but, except in sails, they have not helped us much. The difficulty arises from the great variations in the speed of the air currents and the long periods in which the movement is so slight that they afford no power whatever, together with other periods when their speed is likely to be destructive to any machinery large enough to win much value in any state of their motion. It seems, however, likely that the method of the storage battery, with the cheapening of its costs

and increase of its efficiency, which may reasonably be expected in the near future, will enable us so to husband the energy afforded by windmills that they will serve for constant uses. It may also be possible to find a more direct way of utilizing this source of power by using the variable work of windmills in pumping water to a height so that it can be made to give a constant supply to water engines. As it is, this oldest servant of man is still among his most useful helpers; the sails of mills and ships are together more numerous than any other machines by which he hitches his economic wagons to the stars, and in time they are likely to yield more power than all other devices.

The next largest source of solar energy is that obtained from falling water. Until less than a generation ago water power had a very limited application, for the reason that it had to be utilized at or very near the point where it was obtained—and it could be carried by wire-rope belts for a distance of not more than a few hundred feet. With the method of turning the energy of falling water into electricity and thence back to dynamic power it is now possible to send that force a hundred miles from the point where it is obtained and with the improvements that are constantly making, it seems likely that the distance to which it may be conveyed will in time become practically unlimited. In no other case has the use of any source of power been so speedily extended. A glance at the rapidly developing situation will show us that this source of power promises to effect very great changes in the seats of industries and consequently of population.

It is evident that the amount of water power available in a country depends on three factors: the amount of rain, or melting snow; the average height above the sea of the field on which it falls; and the extent to which the flow of water is or can be evenly distributed throughout the year. This is a complex equation, one not easily solved, yet in a rough way it enables us to determine much as to the future of accessible power and thereby forecast the success of communities. Thus in Europe we see that certain streams radiating from the Alps, such as the tributaries of the Rhone, the Po and the Rhine, which are fed to a great extent by melting snows and have great natural reservoirs in the lakes



through which they flow, are well placed in relation to this source of energy. So, too, with the streams of Sweden and Norway, which come down rapidly from a great height and are likewise, for various reasons, of fairly uniform discharge. Thus when coal becomes impossibly dear because of the approaching exhaustion of the limited store, as will surely be the case within three centuries, these favored regions will be the seats of manufacturing, which will pass from its present stations.

On the whole, North America is, as regards its possible water powers, more favorably placed than any other continent. The amount of falling water is less than in South America, perhaps less than in Africa, but the distribution is better for the needs of man. In all the glaciated district which occupies near one-half of its surface, natural storage is provided by the porous water-holding nature of the drift deposits and by the lakes which by the tens of thousands occupy these glaciated fields. This glaciated district of North America is, indeed, the richest part of the world in streams fitted to drive wheels. We seek in vain elsewhere for any region of this kind comparable to the area on the eastern side of the continent between the Arctic circle and the Ohio and westward to the centre of the great continental valley, from the upper Mississippi and the Ohio to the Mackenzie River. The southern Appalachians also afford a field abounding in streams fitted to be sources of power, deficient only in storage, which is partly supplied by the forests and by the deep coating of decayed rock which, in a measure, acts, as does the drift, in the manner of a sponge to detain the water on its way to the sea. In the plain region of the Middle West, we have a broad field where the streams, because of their slight fall, can afford little help to man's arts. But again in the eastern face of the Cordilleras, from the Arkansas River northward to the Arctic circle, the rivers, though of scanty flow, promise great value in the way of power; and fed as they are by melting snows, their discharge, at least in their lower reaches, is fairly steadfast. In the central region of the Cordilleras there is as far north as the Canada line a wide belt of country where the rainfall is very small in amount. We find little power value in the streams, but on the western slope facing

the Pacific Ocean, and increasingly from California northward to Alaska, there is, for its width, a noble body of power awaiting the call to use. It is this store combined with the mineral resources of the Cordilleran field, together with the quality of its people, that is to give the States of this region their dominance in the Pacific realm.

As to the water-power of the other continents, it may be said in general that while it is certain to be a vast advantage to many wide fields, it is rather narrowly limited in value by the lack of possibilities of storage, combined with a bad seasonal distribution. Of the regions which promise much, we may note the eastern face of the Andes for the greater part of its length, the high country of eastern Brazil, and, with some limitations, all the country from the La Plata northward; in Africa, certainly the valley of the upper Nile, that of the Zambesi, and on a basis of imperfect knowledge the great valleys of the Congo and of the Niger; as a whole this continent probably ranks next after North America in its water-power sources. In Australia the prevailing aridity of the region makes the value of this resource relatively small, yet in ratio to the food-yielding resources of the land it is considerable. The greater islands of the Malayan archipelago are, because of their prevailing high rainfall, fairly well-placed for power. So, too, are the isles of the eastern coast of Asia; the Philippines are, for narrow lands, fairly rich in opportunities for water mills; in Asia there is the promise to the future of its peoples of a vast profit from this source of help.

On the mainland of Asia the most important district for water power is to be found in the southern versant of the Himalayas, where streams of fair permanence descend from a great average height to the lower open country. This condition continues around the eastern side of the central Asiatic mountain systems, affording in the interior of China similar opportunities to those of India. On the Arctic slope of the Continent the rivers, though of less flow than those discharging to the south and east, will afford a large amount of power. Below the head waters in the Arctic Slope of Siberia the rivers descend gently, and though of large volume, they are not likely to be of great value to the arts. As a



whole, the share of available water power in Asia in proportion to its area or the food-giving capacity of its soils, is probably less than in any other of the continents except Australia. Yet even in Australia there is the promise of a vast profit from this source of help.

Considered as a whole, the rivers of the earth promise, with the aid of the engineer, to afford far more dynamic help to the arts than all that now serves them. Moreover, this help will be from sources of continuous supply and not like that from coal, in the way of speedy exhaustion. And further, the full utilization of the streams, as sources of power, because it involves the process of holding back the flood-waters, will in a considerable measure aid in diminishing the speed with which the soil passes to the sea, while the water, after it has been used to turn the wheels, may, to a great extent, be made to serve the purposes of irrigation. The increase in the use of this source of energy will probably not continue to be very rapid until the supply of the fossil fuel approaches exhaustion; from that time on it will necessarily be speedy, until all this group of resources is completely applied to the arts.

The other source of power originating beyond the earth is the tide produced mainly by the moon's attraction. This movement of the sea probably not exceeding in the central parts of the oceans a rise and fall of more than a foot or so, is in many places accumulated on the shores to a great height. There are many thousand miles of coast line where the average swing of the waters amounts to ten feet or more, and along hundreds of miles of shore it exceeds twice that amount. The total energy involved in the tidal movement is so large that if all of it could be turned to the uses of man there would be a supply ample for the needs of all the hosts which the soil could sustain with the best husbanding. Unfortunately, we can conceive of no convenient means whereby this power which the sun and moon expend upon the earth can in any great measure be applied to industries. The tide mill, which appears to have been designed in England some centuries ago and to have been brought to this country in the colonial period, is a simple device consisting of a dam

with wheels so arranged that they are impelled by the water as it enters or leaves the embayed space. The energy thus attained may be very considerable; it would not be costly at many places to win a maximum of several thousand horse-power. There is, however, the serious difficulty that the energy thus obtained is irregularly distributed, the maximum arising twice each day at mid-tide and falling to nothing four times each day at the time of low and high tide. There are yet other irregularities in the difference between spring and neap tides as well as the daily retardation by about an hour of the maxima and minima of the risings. The result is that there have never been more than a few hundred tide-mills at any one time in operation, and these have been limited to such uses as grinding corn. With the development of steam-power, they have gradually passed out of service, so that it is doubtful if there be a score of them now in operation in North America. It is, however, possible that with the development of an efficient storage-battery system the powers obtainable from the tides will be very greatly increased. In the time, but a few centuries remote from the present, when the need of replacing the power derived from fuel is great, the tide is pretty sure to afford a most valuable resource to all the countries about the northern parts of the Atlantic and Pacific oceans where the range is great and the sites for mills numerous.

It has often been suggested that power could be obtained from the motion of the sea waves. There is no question but that the energy involved in the surges is great, for in an ordinary storm the pressure of their stroke on the cliffs may amount to as much as ten thousand pounds to the square foot, or about that in an ordinary low-pressure boiler; but the exceedingly intermittent and variable nature of this action, together with the difficulties of maintaining any machinery which can render it serviceable for the arts, makes it unlikely that it will be utilized save in the last extremity of need.

There is yet another way by which we may find access to solar energy, one which is even more direct than any of those already described: we may reflect those rays by mirrors or refract them by lenses and thereby concentrate their heat. There is an ancient



story—surely no more than myth—that Archimedes contrived to do this so effectively in the siege of Syracuse that he set fire to ships. In an extremity for lack of power there is no doubt that we could with some profit resort to this system. In those parts of the earth, in low latitudes, where the sky is rarely clouded, about a hundred square feet of mirrors would for some hours each day afford energy equal to a horse-power, but, as was just said, it would be a state of extreme and unforeseeable need that would bring this method into any considerable use.

This is true also of a project, once much discussed, of utilizing the central heat of the earth. It exists in such ample store that if we could draw upon it, there would be power for all the conceivable needs of man for a million of years to come. But there is no conceivable way in which it could be brought to general use. Where there are hot springs of large volume it would be possible to turn them to service, but such opportunities are so exceptional as to be of no importance. It has also been suggested that it might be possible to bore down into the earth to a sufficient depth to heat water much above the boiling point; but save near volcanic centres and certain other very exceptional places, this scheme is quite impracticable. The average increase in temperature is only about 100 deg. Fahr. for the mile of descent, and at less than three miles down the pressure would speedily close the pipe. Thus we see that the earth's vast inner store of energy cannot be of avail.

We come now to the energy derived from the sun, which can be won to use by burning the carbon which is locked up in organic matter; in the timber of the forests; in recent peats, or their equivalents; in beds of coal and in those curious carbonaceous products of animal remains, petroleum and burnable rock gases. As for the wood of the forests, it is everywhere an ephemeral source of supply. When the earth is as fully peopled as it is likely to be in the twenty-third century of our era, there will be no forests save those that may be preserved in order to insure the flow of streams. At best, and with the utmost economy, it requires about an acre of woodland to meet the needs of each civilized person in high latitudes; as much as is required for his food. With the crowding

which now exists in most developed countries, this resource can have no value as a source of power.

The most recently formed of the fossil fuels, the peat deposits, which, in practically all cases, have been deposited since the last glacial period, are of much more value as a source of power than is commonly reckoned. They occur in all the humid regions beyond the tropics; and, in general, are best developed in the glaciated districts. Data to determine their extent are lacking, but from certain observations in New England, it seems likely that the widely scattered deposits of that district may be reckoned as having a total area of at least five hundred square miles, with an average depth of ten feet, the deposit having about the heat-giving value of ordinary coal contained in a bed of that area and rather less than half that thickness. Northward, on this continent, to the Arctic circle, the beds of this material are found in even larger proportion to the area. Probably the one-hundredth of the surface of the continent is similarly conditioned. The aggregate of this store is vast, amounting in volume to perhaps as much as all the coal beds and in heat-giving value to perhaps one-half of those deposits. There are certain serious difficulties connected with the utilization of heat which have greatly limited its value in the arts and for a century or more have diminished its use as a fuel. When it is taken from the bogs it holds nearly half its weight of water, which is only slowly and partly dried away, and when the material is dried it is very bulky in proportion to its heat-giving power. A host of processes have been invented for drying and compressing the crude peat, but experience has shown that in the United States this cannot profitably be undertaken at the present price of coal. There is, however, the possibility that in many places the substance can be used without other treatment than drying for the manufacture of fuel gas, and this gas can then be burned for making electrical power. In such a way this store of ancient solar energy may become immediately available in the arts. In any event it remains a reserve on which the people of the future may draw in the ever-advancing need of power.

We turn now to the deeply buried deposits of carbon, coal, petroleum and rock gas which have been the basis of the economic



side of our modern civilization. It is well to begin this part of our inquiry by noting that the formation of these stores of fuel depends on the action of organic creatures in taking carbon from the carbonic acid gas of the atmosphere and storing it in the earth. This task is effected by the plants, which each day take some million tons of carbon from the air to shape it in their forms. The greater part of this element goes back to the atmosphere on the death of the creatures it has served; some part of it is taken into the bodies of animals who are not able to obtain carbon directly from the inorganic realm. This, too, normally passes straightway back to the air by the processes of decay. In some part, however, the remains of plants and animals are deposited under water in such conditions that the carbon they hold is not quickly combined with oxygen and thus delivered into the air, but stays until it forms a bed of humus or peat and is buried in the sea bottom or in the beds of lakes beneath deposits of clay, sand or limestone; then, if it be the remains of plants, it may change to coal, and if it be animal waste, to petroleum or rock gas.

The passage from the state of peat to that of coal is gradual: with the escape of a certain part of the more volatile compounds of carbon in the form of gases and with the increasing pressure of the overlying rocks and the added heat, we have at first lignites; then brown coal; then in time bituminous; later, anthracite, and finally, at the extreme point of the series, graphite—an essentially unburnable form of carbon. In these changes of vegetable matter there is no considerable production of oil, and the gases which are formed do not seem to be preserved in the rocks. In the decomposition of the animal remains buried in strata there is no coaly substance produced, but if the conditions be favorable the free carbon of their bodies combined with hydrogen, forming hydro-carbons in the form of the varied petroleum group, the commonest and most useful natural gas. This burial of carbon in the form of plant and animal remains in the burnable form suited to make coal, oil, or gas is exceptional; by far the greater part that enters the earth finds way there in unison with lime, magnesia or other elements under conditions which do not admit of its being used as fuel.

Probably of each ton of inhumed carbon so much as the hundredth-part becomes a possible source of heat for the uses of man.

The amount of fossil fuel is not only small but evanescent. The beds of coal are always formed on the land; they have rarely been buried to the depth of more than a few thousand feet and are generally in process of rapid destruction. Oil and gas being from the remains of marine animals, are usually found in rocks that obtain deeper burial and that occur more widely, but these substances are easily driven out by heat, and when the beds containing them are even moderately heated they are sent forth to the air. Moreover, the pressure of the gases on the rocks is constantly so great that they are always eager to escape from their prison and are likely to expel the oil with which they are mingled. Thus it comes about that the fields of oil and gas are much more narrowly limited than those containing coal.

As a whole the combustible carbon in the forms of peat, coal, oil and gas constitute the least important of the several great sources of energy which are at the command of man. They are not only exhaustible, but form a store that cannot be expected to endure the drain made on it for more than three or four centuries. We now know that the coal beds of any great value are essentially limited to the regions beyond the tropics, and practically to the regions north of 30 deg. north latitude. The reason for this is that the equatorial districts have always been the seat of such high temperature that peat, the first stage of coal, could not accumulate there to any considerable extent, and so the coal-making process did not have a chance to begin. The store is effectively limited to the northern parts of North America and of the Eurasian continent. Of this accumulation the share of Europe will be substantially exhausted by the end of the present century: indeed, if the present increase in the demands upon it continues, the exhaustion may come within sixty or seventy years. This does not mean that all or nearly all of the coal that lies beneath the surface will have been used, but that very much of the store is so deeply buried that it is not in existing economic conditions available. That which remains will serve only when the needs are desperate and are far beyond what can be met by the other sources of power and heat.



In northern Asia, especially in China, there are very extensive deposits of coal. The Chinese Empire probably has a store larger than any other except that of the United States, a resource which in combination with the cheap labor of that country is certain to play a large part in the economic development of the lands about the northern Pacific realm. So far as the world is to depend on coal as a source of power, there are but two districts that will have a chance to attain a large and enduring success; these are the fields of western China and that of North America east of the Mississippi and south of the St. Lawrence, and these areas, vast as is the store of fuel they contain, are not likely to meet the demands made upon them in the next three hundred years. With rare and local exceptions their beds of coal are much more easily accessible because they require less deep mining than those of Europe or Asia, so that they will probably be exhausted long before those of England and Belgium come to an end.

The other burnable materials of the under earth, rock, gas, and petroleum, will certainly not endure the demands made on them for nearly as long as will the coal deposits. The rock gases are a peculiarly evanescent store. Experience has shown that the fields which have been developed are not likely to afford a profitable supply for more than two or three decades. These fields are of seldom occurrence, none of considerable value having been found in Europe. The conditions of their formation indicate that they may not be expected to exist in the other continents to the extent that we find them in the central valley of North America. They are formed in vast quantities from the decomposition of organic matter, and in every coal bed in the transition period from peat to the bituminous a considerable part of the carbon combines with hydrogen to produce them; but for some reason that is not yet clear this gas is never in any considerable quantity retained in the coal-bearing strata. Now and then it is found in quantities great enough to originate those well-known unhappy explosions of mines which so frequently occur, but in these accidents the burning gas is small in quantity and of itself not the cause of the damage which is brought about by the fired coal dust that is shaken into the air. Now and then we may note the gas

escaping from the newly broken face of the coal, showing that it is held, under pressure, in the mass; but, as above suggested, it passes from the strata to the upper air about as rapidly as it is formed. But when the rock gas is developed from animal remains near a bed of porous rock with a covering of dense material, the gas then finds lodgment in the interspaces and may gather a pressure of a thousand pounds or so to the square inch. When the beds containing the gas are penetrated by the drill, the discharge takes place so rapidly that a few years suffice to drain a large area. This source of energy is certain to be less enduring than any of the others to which man can turn.

The petroleums, when first brought into use, were supposed to afford a basis for industries as extensive and as lasting as the coal deposits. Time has shown that while these accumulations are in some places, as at Baku, in vast quantities, none of the so-called basins which are now drawn upon are likely to withstand the drain for a half-century to come. Inasmuch as the rock oils are formed from decomposing animal matter, there is reason to believe that they have been very generally produced in all marine deposits abounding in fossils; that is, in nearly all beds formed on the floors of the ancient seas at some distance from the shores. It is tolerably certain that if we had access to all this oil, it would in amount many times exceed in energy-giving value all the other existing stores of fuel. Unfortunately, the rock gases are abundantly formed along with the oil; and by their accumulated pressure force the fluid to the surface, where it is broken up and dispersed. Consequently there is probably a large amount of petroleum beneath the sea floors quite inaccessible to man; the amount at his disposal beneath the lands is small. In western Europe there is, in an economic sense, no petroleum. In North America, the fields probably now fairly well known are limited to the Mississippi valley and possibly the country to the northward as far as the Arctic circle, southern Texas, New Brunswick, and to a belt on the coast of California. The Baku, or Caspian district of Russia, is the only part of the old world where large amounts of oil are well known to exist, but it is likely that other fields will be disclosed in Siberia and in China. Like discoveries are to be reck-



oned on in Africa, Australia and South America, but it is not at all probable that any of them will exceed North America in their yield, and it is evident that the oil of this continent will probably not outlast the present century.

It is to be noted that while the native petroleum of the world can be no more than a temporary source of energy in the forms of heat and light, oil of like quality can be produced in vastly larger amounts from certain carbonaceous shales which plentifully occur in various parts of the world. One of these formations, perhaps the most extensive, is that of the Ohio valley and adjacent districts in the east and north. Here we have a set of beds averaging more than a hundred feet in thickness which, over wide areas, will yield to distillation probably about one-tenth of its mass in oil, paraffin, and related substances; and this is of much importance: it affords the range of chemical properties which make our rock oils the source of so many substances necessary in the arts. From this deposit, but one of the many that are found in various parts of the world, we may look for a store of energy which may be drawn upon long after the beds of coal have been consumed. The oil and other burnable materials will be won at a much greater cost than where they are obtained from wells, in the fluid state; but the by-products of the distillation to which the rock is subjected will probably be as valuable as those afforded by the natural oil. The present writer has computed that the oil which may possibly be had from the Ohio shale above mentioned will in volume much exceed the amount of water contained in Lake Superior. This estimate cannot pretend to accuracy, but it may serve to indicate the amplitude of this source of material serving for a wide range of needs.

While the beds which may be distilled in order to obtain petroleum and its relative products are very extensive and widely distributed, we cannot, with certainty, look to them as sources of power in most parts of the world, until the coal beds are effectively exhausted. As a source of illuminating oils they are likely to be resorted to extensively in the immediate future and to serve this use for centuries. It may be that the gas engine, that group of contrivances which seems likely to displace the engine of Watt,

will be so developed that petroleum distilled from bituminous shales will be an economical source of power, notwithstanding its high cost.

Viewed as a whole, the forecast for the future of power with the world peopled to its maximum of food-giving resources, is favorable. While coal and natural oils and gases are essentially temporary resources not to be considered available for more than three or four centuries to come, they constitute but a small part of the offerings of nature on this sphere. The falling waters, the winds and the tides are great and permanent sources of supply from which the crafty mind of man will be certain to win his needs for all his time. These sources of supply he will supplement with the oils obtained from the above-mentioned carbonaceous shales, and at the same time he will seek for dye-stuffs, medicaments and the host of petroleum products which are now regarded as mere by-products. For all we dare reckon of the future the great stores of solar energy are sure to be at the service of our kind, as many as the earth can feed; and this in far larger share to each individual than we now demand.



## THE CUP OF HUMANITY

OKAKURA-KAKUZO

**T**EA began as a medicine and grew into a beverage. In China, in the eighth century, it entered the realm of poetry as one of the polite amusements. . . . The fifteenth century saw Japan ennoble it into a religion of æstheticism—Teaism. Teaism is a cult founded on the adoration of the beautiful among the sordid facts of every day existence. It inculcates purity and harmony, the mystery of mutual charity, the romanticism of the social order. It is essentially a worship of the Imperfect, as it is a tender attempt to accomplish something possible in this impossible thing we know as life.

The Philosophy of Tea is not mere æstheticism in the ordinary acceptance of the term, for it expresses conjointly with ethics and religion our whole point of view about man and nature. It is hygiene, for it enforces cleanliness; it is economics, for it shows comfort in simplicity rather than in the complex and costly; it is moral geometry, inasmuch as it defines our sense of proportion to the universe. It represents the true spirit of Eastern democracy by making all its votaries aristocrats in taste.

The long isolation of Japan from the rest of the world, so conducive to introspection, has been highly favorable to the development of Teaism. Our home and habits, costume and cuisine, porcelain, lacquer, painting—our very literature—all have been subject to its influence. No student of Japanese culture could ever ignore its presence. It has permeated the elegance of noble boudoirs, and entered the abode of the humble. Our peasants have learned to arrange flowers, our meanest laborer to offer his salutation to the rocks and waters. In our common parlance we speak of the man “with no tea” in him, when he is insusceptible to the serio-comic interests of the personal drama. Again we stigmatize the untamed æsthete who, regardless of the mundane tragedy, runs riot in the springtide of emancipated emotions, as one “with too much tea” in him.

The outsider may indeed wonder at this seeming much ado about nothing. What a tempest in a tea-cup! he will say. But

when we consider how small after all the cup of human enjoyment is, how soon overflowed with tears, how easily drained to the dregs in our quenchless thirst for infinity, we shall not blame ourselves for making so much of the tea-cup. Mankind has done worse. In the worship of Bacchus, we have sacrificed too freely; and we have even transfigured the gory image of Mars. Why not consecrate ourselves to the queen of the Camelias, and revel in the warm stream of sympathy that flows from her altar? In the liquid amber within the ivory-porcelain, the initiated may touch the sweet reticence of Confucius, the piquancy of Laotse, and the ethereal aroma of Sakyamuni himself.

Those who cannot feel the littleness of great things in themselves are apt to overlook the greatness of little things in others. The average Westerner, in his sleek complacency, will see in the tea ceremony but another instance of the thousand and one oddities which constitute the quaintness and childishness of the East to him. He was wont to regard Japan as barbarous while she indulged in the gentle arts of peace: he calls her civilized since she has begun to commit wholesale slaughter on Manchurian battlefields. Much comment has been given lately to the Code of the Samurai,—the Art of Death which makes our soldiers exult in self-sacrifice; but scarcely any attention has been drawn to Teaism, which represents so much of our Art of Life. Fain would we remain barbarians, if our claim to civilization were to be based on the gruesome glory of war. Fain would we await the time when due respect shall be paid to our art and ideals.

When will the West understand, or try to understand, the East? We Asiatics are often appalled by the curious web of facts and fancies which has been woven concerning us. We are pictured as living on the perfume of the lotus, if not on mice and cockroaches. It is either impotent fanaticism or else abject voluptuousness. Indian spirituality has been derided as ignorance, Chinese sobriety as stupidity, Japanese patriotism as the result of fatalism. It has been said that we are less sensible to pain and wounds on account of the callousness of our nervous organization!

Why not amuse yourselves at our expense? Asia returns the compliment. There would be further food for merriment if you



were to know all that we have imagined and written about you. All the glamour of the perspective is there, all the unconscious homage of wonder, all the silent resentment of the new and undefined. You have been loaded with virtues too refined to be envied, and accused of crimes too picturesque to be condemned. Our writers in the past—the wise men who knew—informed us that you had bushy tails somewhere hidden in your garments, and often dined off a fricassee of new-born babes! Nay, we had something worse against you: we used to think you the most impracticable people on the earth, for you were said to preach what you never practiced.

Such misconceptions are fast vanishing amongst us. Commerce has forced the European tongues on many an Eastern port. Asiatic youths are flocking to Western colleges for the equipment of modern education. Our insight does not penetrate your culture deeply, but at least we are willing to learn. Some of my compatriots have adopted too much of your customs and too much of your etiquette, in the delusion that the acquisition of stiff collars and tall silk hats comprised the attainment of your civilization. Pathetic and deplorable as such affectations are, they evince our willingness to approach the West on our knees. Unfortunately the Western attitude is unfavorable to the understanding of the East. The Christian missionary goes to impart, but not to receive. Your information is based on the meagre translations of our immense literature, if not on the unreliable anecdotes of passing travellers. It is rarely that the chivalrous pen of a Lafcadio Hearn or that of the author of "The Web of Indian Life" enlivens the Oriental darkness with the torch of our own sentiments.

Perhaps I betray my own ignorance of the Tea Cult by being so outspoken. Its very spirit of politeness exacts that you say what you are expected to say, and no more. But I am not to be a polite Teaist. So much harm has been done already by the mutual misunderstanding of the New World and the Old, that one need not apologize for contributing his tithe to the furtherance of a better understanding. The beginning of the twentieth century would have been spared the spectacle of sanguinary warfare, if Russia had condescended to know Japan better. What

dire consequences to humanity lie in the contemptuous ignoring of Eastern problems! European imperialism, which does not disdain to raise the absurd cry of the Yellow Peril, fails to realize that Asia may also awaken to the cruel sense of the White Disaster. You may laugh at us for having "too much tea," but may we not suspect that you of the West have "no tea" in your constitution?

Let us stop the continents from hurling epigrams at each other, and be sadder if not wiser by the mutual gain of half a hemisphere. We have developed along different lines, but there is no reason why one should not supplement the other. You have gained expansion at the cost of restlessness; we have created a harmony which is weak against aggression. Will you believe it?—the East is better off in some respects than the West!

Strangely enough humanity has so far met in the tea-cup. It is the only Asiatic ceremonial which commands universal esteem. The white man has scoffed at our religion and our morals, but has accepted the brown beverage without hesitation. The afternoon tea is now an important function in Western society. In the delicate clatter of trays and saucers, in the soft rustle of feminine hospitality, in the common catechism about cream and sugar, we know that the Worship of Tea is established beyond question. The philosophic resignation of the guest to the fate awaiting him in the dubious decoction proclaims that in this single instance the Oriental spirit reigns supreme.

The earliest record of Tea in European writing is said to be found in the statement of an Arabian traveller, that after the year 879 the main sources of revenue in Canton were the duties on salt and tea. Marco Polo records the deposition of a Chinese minister of finance in 1285 for his arbitrary augmentation of the tea-taxes. It was at the period of the great discoveries that the European people began to know more about the extreme Orient. At the end of the sixteenth century the Hollanders brought the news that a pleasant drink was made in the East from the leaves of a bush. The travellers Giovanni Batista Ramusio (1559), L. Almeida (1576), Maffeno (1588), Tareira (1610), also men-



tioned tea.<sup>1</sup> In the last-named year ships of the Dutch East India Company brought the first tea into Europe. It was known in France in 1636, and reached Russia in 1638.<sup>2</sup> England welcomed it in 1650, and spoke of it as "That excellent and by all physicians approved China drink, called by the Chineans Tcha, and by other nations Tay alias Tee."

Like all the good things of the world, the propaganda of Tea met with opposition. Heretics like Henry Saville (1678) denounced drinking it as a filthy custom. Jonas Hanway (Essay on Tea, 1756) said that men seemed to lose their stature and comeliness, women their beauty through the use of tea. Its cost at the start (about fifteen or sixteen shillings a pound) forbade popular consumption, and made it "regalia for high treatments and entertainments, presents being made thereof to princes and grandees." Yet in spite of such drawbacks tea-drinking spread with marvelous rapidity. The coffee-houses of London in the early half of the eighteenth century became, in fact, tea-houses, the resort of wits like Addison and Steele, who beguiled themselves over their "dish of tea." The beverage soon became a necessary of life—a taxable matter. We are reminded in this connection what an important part it plays in modern history. Colonial America resigned herself to oppression until human endurance gave way before the heavy duties laid on Tea. American independence dates from the throwing of tea-chests into Boston Harbor.

There is a subtle charm in the taste of tea which makes it irresistible and capable of idealization. Western humorists were not slow to mingle the fragrance of their thought with its aroma. It has not the arrogance of wine, the self-consciousness of coffee, nor the simpering innocence of cocoa. Already in 1711, says the Spectator, "I would therefore in a particular manner recommend these my speculations to all well-regulated families that set apart an hour every morning for tea, bread and butter; and would earnestly advise them for their good to order this paper to be punctually served up and to be looked upon as a part of the tea-equipage." Samuel Johnson draws his own portrait as "a hard-

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<sup>1</sup> Paul Kransel, *Dissertations*, Berlin, 1902.

<sup>2</sup> *Mercurius Politicus*, 1656.

ened and shameless tea-drinker, who for twenty years diluted his meals with only the infusion of the fascinating plant; who with tea amused the evening, with tea solaced the midnight, and with tea welcome the morning."

Charles Lamb, a professed devotee, sounded the true note of Teaism when he wrote that the greatest pleasure he knew was to do a good action by stealth, and to have it found out by accident. For Teaism is the art of concealing beauty that you may discover it, of suggesting what you dare not reveal. It is the noble secret of laughing at yourself, calmly yet thoroughly, and is thus Humor itself,—the smile of philosophy. All genuine humorists may in this sense be called Tea-philosophers,—Thackeray, for instance, and, of course, Shakespeare. The poets of the Decadence (when was not the world in decadence?), in their protests against materialism, have, to a certain extent, also opened the way to Teaism. Perhaps nowadays it is in our demure contemplation of the Imperfect that the West and the East can meet in mutual consolation.

The Taoists relate that at the great beginning of the No-Beginning, Spirit and Matter met in mortal combat. At last the Yellow Emperor, the Sun of Heaven, triumphed over Shuhyung, the demon of darkness and earth. The Titan, in his death agony, struck his head against the solar vault and shivered the blue dome of jade into fragments. The stars lost their nests, the moon wandered aimlessly among the wild chasms of the night. In despair the Yellow Emperor sought far and wide for the repairer of the Heavens. He had not to search in vain. Out of the Eastern sea rose a queen, the divine Niuka, horn-crowned and dragon-tailed, resplendent in her armor of fire. She welded the five-colored rainbow in her magic cauldron and rebuilt the Chinese sky. But it is also told that Niuka forgot to fill two tiny crevices in the blue firmament. Thus began the dualism of love—two souls rolling through space and never at rest until they join together to complete the universe. Everyone has to build anew his sky of hope and peace.

The heaven of modern humanity is indeed shattered in the Cyclopean struggle for wealth and power. The world is groping in the shadow of egotism and vulgarity. Knowledge is bought



through a bad conscience, benevolence practiced for the sake of utility. The East and the West, like two dragons tossed in a sea of ferment, in vain strive to regain the jewel of life. We need a Niuka again to repair the grand devastation; we await the great Avatar. Meanwhile, let us have a sip of tea. The afternoon glow is brightening the bamboos, the fountains are bubbling with delight, the sougning of the pines is heard in our kettle. Let us dream of evanescence, and linger in the beautiful foolishness of things.

## II

Tea is a work of art and needs a master hand to bring out its noblest qualities. We have good and bad tea as we have good and bad paintings—generally the latter. There is no single recipe for making the perfect tea as there are no rules for producing a Titian or a Sesson. Each preparation of the leaves has its individuality, its special affinity with water and heat, its hereditary memories to recall, its own method of telling a story. The truly beautiful must be always the *It*. How much do we not suffer through the constant failure of society to recognize this simple and fundamental law of art and life! Lichihlai, a Sung poet, has sadly remarked that there were three most deplorable things in the world: the spoiling of fine youths through false education, the degradation of fine paintings through vulgar admiration, and the utter waste of fine tea through incompetent manipulation.

Like Art, Tea has its periods and its schools. Its evolution may be roughly divided into three main stages: the Boiled Tea, the Whipped Tea, and the Steeped Tea. We moderns belong generally to the last school. These several methods of appreciating the beverage are indicative of the spirit of the age in which they prevailed. For life is an expression, our unconscious actions the constant betrayal of our innermost thought. Confucius said that "man hideth not." Perhaps we reveal ourselves too much in small things because we have so little of the great to conceal. The tiny incidents of daily routine are as much a commentary of racial ideals as the highest flight of philosophy or poetry. Even as the difference in favorite vintage marks the separate idiosyncrasies of

different periods and nationalities of Europe, so the Tea-ideals characterize the various moods of Oriental culture. The Cake-tea which was boiled, the Powdered-tea which was whipped, the Leaf-tea which was steeped, mark the distinct emotional impulses of the Tang, the Sung, and the Ming dynasties of China. If we were inclined to borrow the much-abused terminology of art-classification, we might designate them respectively, the Classic, the Romantic, and the Naturalistic schools of Tea.

The tea-plant, a native of southern China, was known from very early times to Chinese botany and medicine. It is alluded to in the classics under the various names of Tou, Tseh, Chung, Kha, and Ming, and was highly prized for possessing the virtues of relieving fatigue, delighting the soul, strengthening the will, and repairing the eyesight. It was not only administered as an internal dose, but often applied externally in form of paste to alleviate rheumatic pains. The Taoists claimed it as an important ingredient of the elixir of immortality. The Buddhists used it extensively to prevent drowsiness during their long hours of meditation.

By the fourth and fifth centuries Tea became a favorite beverage among the inhabitants of the Yangtsekiang valley. It was about this time that the modern ideograph Cha was coined, evidently a corruption of the classic Tou. The poets of the southern dynasties have left some fragments of their fervent adoration of the "froth of the liquid jade." Then emperors used to bestow some rare preparation of the leaves on their high ministers as a reward for eminent services. Yet the method of drinking tea at this stage was primitive in the extreme. The leaves were steamed, crushed in a mortar, made into a cake, and boiled together with rice, ginger, salt, orange peel, spices, milk, and sometimes with onions! The custom obtains at the present day among the Tibetans and various Mongolian tribes who make a curious syrup of these ingredients. The use of lemon slices by the Russians, who learned to take tea from the Chinese caravanseries, points to the survival of the ancient method.

It needed the genius of the Tang dynasty to emancipate Tea from its crude state and lead to its final idealization. With Luwuh in the middle of the eighth century we have our first apostle



of tea. He was born in an age when Buddhism, Taoism, and Confucianism were seeking mutual synthesis. The pantheistic symbolism of the time was urging one to mirror the Universal in the Particular. Luwuh, a poet, saw in the Tea-service the same harmony and order which reigned through all things. In his celebrated work, the "Chaking" (The Holy Scripture of Tea) he formulated the Code of Tea. He has since been worshipped as the tutelary God of the Chinese tea merchants.

The "Chaking" consists of three volumes and ten chapters. In the first chapter Luwuh treats of the nature of the tea-plant, in the second of the implements for gathering the leaves, in the third of the selection of the leaves. According to him the best quality of the leaves must have "creases like the leathern boot of Tartar horsemen, curl like the dewlap of a mighty bullock, unfold like a mist rising out of a ravine, gleam like a lake touched by a zephyr, and be wet and soft like fine earth newly swept by rain."

The fourth chapter is devoted to the enumeration and description of the twenty-four members of the tea-equipage, beginning with the tripod brazier and ending with the bamboo cabinet for containing all these utensils. Here we notice Luwuh's predilection for Taoist symbolism. Also it is interesting to observe in this connection the influence of tea on Chinese ceramics. The Celestial porcelain, as is well known, had its origin in an attempt to reproduce the exquisite shade of jade, resulting in the Tang dynasty, in the blue glaze of the south and the white glaze of the north. Luwuh considered the blue as the ideal color for the tea-cup, as it lent additional greenness to the beverage, whereas the white made it look pinkish and distasteful. It was because he used cake-tea. Later on, when the tea masters of Sung took to the powdered tea, they preferred heavy bowls of blue-black and dark brown. The Mings, with their steeped tea, rejoiced in light ware of white porcelain.

In the fifth chapter Luwuh describes the method of making tea. He eliminates all ingredients except salt. He dwells also on the much-discussed question of the choice of water and the degree of boiling it. According to him, the mountain spring is the best, the river water and the spring water comes next in the order

of excellence. There are three stages of boiling: the first boil is when the little bubbles like the eye of fishes swim on the surface; the second boil is when the bubbles are like crystal beads rolling in a fountain; the third boil is when the billows surge wildly in the kettle. The Cake-tea is roasted before the fire until it becomes soft like a baby's arm and is shredded into powder between pieces of fine paper. Salt is put in the first boil, the tea in the second. At the third boil, a dipperful of cold water is poured into the kettle to settle the tea and revive the "youth of the water." Then the beverage was poured into cups and drunk. O nectar! The filmy leaflet hung like scaly clouds in a serene sky or floated like water-lilies on emerald stems. It was of such a beverage that Lotung, a Tang poet, wrote: "The first cup moistens my lips and throat, the second cup breaks my loneliness, the third cup searches my barren entrail but to find therein some five thousand volumes of odd ideographs. The fourth cup raises a slight perspiration,—all the wrong of life passes away through my pores. At the fifth cup I am purified; the sixth cup calls me to the realms of immortals. The seventh cup—ah, but I could take no more! I only feel the breath of cool wind that rises in my sleeves. Where is Horaisan?<sup>3</sup> Let me ride on this sweet breeze and waft away thither."

The remaining chapters of the "Chaking" treat of the vulgarity of the ordinary methods of tea-drinking, a historical summary of illustrious tea-drinkers, the famous tea plantations of China, the possible variations of the tea-service and illustrations of the tea-utensils. The last is unfortunately lost.

The appearance of the "Chaking" must have created considerable sensation at the time. Luwuh was befriended by the Emperor Taisung (763-779), and his fame attracted many followers. Some exquisites were said to have been able to detect the tea made by Luwuh from that of his disciples. One mandarin has his name immortalized by his failure to appreciate the tea of this great master.

In the Sung dynasty the whipped tea came into fashion and created the second school of Tea. The leaves were ground to fine

<sup>3</sup> The Chinese Elysium.



powder in a small stone mill, and the preparation was whipped in hot water by a delicate whisk made of split bamboo. The new process led to some change in the tea-equipage of Luwuh, as well as the choice of leaves. Salt was discarded forever. The enthusiasm of the Sung people for tea knew no bounds. Epicures vied with each other in discovering new varieties and regular tournaments were held to decide their superiority. The Emperor Kia-sung (1101-1124), who was too great an artist to be a well-behaved monarch, lavished his treasures on the attainment of rare species. He himself wrote a dissertation on the twenty kinds of tea, among which he prizes the "white tea" as of the rarest and finest quality.

The tea-ideal of the Sungs differed from the Tangs even as their notion of life differed. They sought to actualize what their predecessors tried to symbolize. To the Neo-Confucian mind the cosmic law was not reflected in the phenomenal world, but the phenomenal world was the cosmic law itself. Æons were but moments—Nirvana always within grasp. The Taoist conception that immortality lay in the eternal change permeated all their modes of thought. It was the process, not the deed, which was interesting. It was the completing, not the completion, which was really vital. Man came thus at once face to face with nature. A new meaning grew into the art of life. The Tea began to be not a poetical pastime but one of the methods of self-realization. Wang-yucheng eulogized tea as "flooding his soul like a direct appeal, that its delicate bitterness reminded him of the after-taste of a good counsel." Sotumpa wrote of the strength of the immaculate purity in tea which defied corruption as a truly virtuous man. Among the Buddhists, the southern Zen sect, which incorporated so much of Taoist doctrines, formulated an elaborate ritual of tea. The monks gathered before the image of Bodhidharma and drank tea out of a single bowl with the profound formality of a holy sacrament. It was this Zen ritual which finally developed into the Tea ceremony of Japan in the fifth century.

Unfortunately the sudden outburst of the Mongol tribes in the thirteenth century which resulted in the devastation and conquest of China under the barbaric rule of the Yuen Emperors, destroyed

all the fruits of Sung culture. The native dynasty of the Mings which attempted re-nationalization in the middle of the fifteenth century was harassed by internal troubles and China again fell under the alien rule of the Manchus in the seventeenth century. Manners and customs changed to leave no vestige of the former times. The powdered tea is entirely forgotten. We find a Ming commentator at loss to recall the shape of the tea whisk mentioned in one of the Sung classics. Tea is now taken by steeping the leaves in hot water in a bowl or cup. The reason why the Western world is innocent of the older method of drinking tea is explained by the fact that Europe knew it only at the close of the Ming dynasty.

To the latter-day Chinese tea is a delicious beverage, but not an ideal. The long woes of his country have robbed him of the zest for the meaning of life. He has become modern, that is to say, old and disenchanting. He has lost that sublime faith in illusions which constitutes the eternal youth and vigor of the poets and ancients. He is an eclectic and politely accepts the traditions of the universe. He toys with nature but does not condescend to conquer nor worship her. His Leaf-tea is often wonderful with its flower-like aroma, but the romance of the Tang and Sung ceremonials are not to be found in his cup.

Japan, which followed closely on the footsteps of Chinese civilization, has known the tea in all its three stages. As early as the year 729 we read of the Emperor Shomu giving tea to one hundred monks at his palace in Nara. The leaves were probably imported by our ambassadors to the Tang Court and prepared in the way then in fashion. In 801 the monk Saicho brought back some seeds and planted them in Yeisan. Many tea-gardens are heard of in the succeeding centuries, as well as the delight of the aristocracy and priesthood in the beverage. The Sung tea reached us in 1191 with the return of Yeisaizenji, who went there to study the southern Zen school. The new seeds which he carried home were successfully planted in three places, one of which, the Uji district near Kioto, bears still the name of producing the best tea in the world. The southern Zen spread with marvelous rapidity, and with it the tea-ritual and the tea-ideal of the Sung. By the



fifteenth century, under the patronage of the Shogun, Ashikaga-Voshinasa, the tea ceremony is fully constituted and made into an independent and secular performance. Since then Teaism is fully established in Japan. The use of the steeped tea of the later China is comparatively recent among us, being only known since the middle of the seventeenth century. It has replaced the powdered tea in ordinary consumption, though the latter still continues to hold its place as the tea of teas.

It is in the Japanese tea ceremony that we see the culmination of tea-ideals. Our successful resistance of the Mongol invasion in 1281 had enabled us to carry on the Sung movement so disastrously cut off in China itself through the nomadic inroad. Tea with us became more than an idealization of the form of drinking; it is a religion of the art of life. The beverage grew to be an excuse for the worship of purity and refinement, a sacred function at which the host and guest joined to produce for that occasion the utmost beatitude of the mundane. The tea room was an oasis in the dreary waste of existence where weary travellers could meet to drink from the common spring of art-appreciation. The ceremony was an improvised drama whose plot was woven about the tea, the flowers, and the paintings. Not a color to disturb the tone of the room, not a sound to mar the rhythm of things, not a gesture to obtrude on the harmony, not a word to break the unity of the surroundings, all movements to be performed simply and naturally—such were the aims of the tea ceremony. And strangely enough it was often successful. A subtle philosophy lay behind it all. Teaism was Taoism in disguise.

## MICHELANGELO

KENYON COX

THE rhapsody with which, in the lifetime of his hero, Vasari opened his "Life of Michelangelo" was written by a professed follower of the master; but it gives a not unfair notion of the estimation in which the great man was held by his contemporaries and his immediate successors. To them he was the one supreme and "divine" artist. They saw that he had crowned the edifice, so long a-building, of Florentine art, that he had finally and completely done what others had been trying to do for more than three hundred years. They saw, also, that his genius had transformed the arts of painting, of sculpture, and of architecture into something different from what they had been, into something reflecting his own strong personality; and they looked upon him as the great teacher, as one who had shown the way to a grander if less graceful art than any they had known. They could not see that the very completeness of his achievement was the death-knell of his school, and that he had at once exhausted the old mine from which so much precious ore had been extracted and the new vein which he himself had opened.

The Florentine School, which culminated in Michelangelo, was pre-eminently the school of draughtsmanship and of the human figure. The Florentines were rarely colorists, cared little for landscape, and were not always masters of composition; but they were all draughtsmen, and from the time that Giotto first put fresh life into the embalmed body of Byzantine tradition each master had added something to the stock of knowledge and had come a little nearer to the realization of the Florentine ideal of significant drawing—of that treatment of form which renders its solidity, its structure, and its movement more instantaneously perceptible than they are in nature itself. The greatest of them all, Massaccio, had done work which has in some respects never been surpassed, and which his successors never ceased humbly to study while art was alive in Florence. When Michelangelo Buonarroti Simoni was born, on Monday, March 6, 1475, Verrocchio, Botticelli and Michelangelo's future master, Ghirlandajo, were at their best;



and another, Florentine by education though not by birth, and more Florentine than the Florentines in his style, Luca Signorelli. A greater than any of these, the first in date of the artists of the culmination, Leonardo da Vinci, was twenty-three years old at Michelangelo's birth, while the third of the great triumvirate of the high Renaissance, Raphael, was born eight years later, in 1483. Between Michelangelo's birth and Raphael's there came in one year, 1477, those of Giorgione and of Titian,<sup>1</sup> the two artists who were to show a new road to art when the Florentine and the Umbrian had set their *ne plus ultra* upon the old.

Michelangelo's family were gentlefolk, who fancied themselves of high origin, and who vainly opposed his vocation to art. In 1488, at the age of thirteen, he was formally apprenticed to Ghirlandajo, then engaged upon the frescoes of Santa Maria Novella. During the year that the apprenticeship lasted Michelangelo must have gained all the knowledge of the practice of fresco-painting with which he undertook the ceiling of the Sistine. At the end of that time he decided to become a sculptor, and went for study to the Medici Gardens, where he began to hew out marbles intended for the Library of San Lorenzo, acquiring that mastery of the chisel which he always retained. There also he carved a mask of a faun, supposed to be his earliest extant work, which, if it is indeed that preserved in the Bargello, is no great thing. Lorenzo, we are told, treated the young sculptor with great consideration, made him an allowance, and took him into his own house, where he lived on intimate terms with the first scholars and the best poets of the age. He studied from the frescoes of Massaccio in the Carmini and from the antique, and he did one original relief, known as "The Centaurs," which is preserved in the Casa Buonarroti. It is a wonderful work for that of a mere boy, and is essentially more Michelangelesque in style than anything he did for some years afterwards. In the Casa Buonarroti is another work of these years, a bas-relief of the Madonna "in the style of Donatello."

Besides the influence of the poets and scholars of Lorenzo's

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<sup>1</sup> This has been the generally accepted belief. Titian's birth is now placed, by some authorities, several years later, about 1490.

brilliant court we must reckon with another influence that was brought to bear on Michelangelo at this period of his life, that of Savanarola. That it was profound and lasting, there can be no doubt. Dante, the Bible, and the writings of Savanarola, are said to have been his favorite reading and the subjects of his meditations in his old age. The Paganism and the Judaism, which remain such prominent and conflicting elements in his art, were thus developed in his nature during these early years.

Shortly after Lorenzo's death in 1492, Michelangelo returned to his father's house, where he carved a Hercules and a Crucifix; both are now lost. Then the first of those panics to which he was occasionally subject befell him, and he left Florence for the first time shortly before the fall of the Medici.

He did not remain long abroad, but was for a while at Bologna, where he carved one of the angels on the tomb of San Domenico. On his return to Florence he did a statue of John Baptist, which is possibly that now in the Berlin Museum, and a sleeping Cupid of which nothing certain is known, but which was, as the story goes, broken and stained and sold for an antique. This statue was the cause of his first going to Rome, where he was invited in 1496 by its purchaser, the Cardinal San Giorgio. During this visit to Rome he produced the "Bacchus," the "Pieta" (the only work he ever signed), and probably the unfinished "Cupid" in the South Kensington Museum. His reputation was now great and growing, and when he returned to Florence in 1501 he was overwhelmed with commissions, many of which were never executed. He was to have done twelve apostles, of which only one was even roughed out. He did the "Bruges Madonna," two reliefs of Madonnas, never finished, and, finally, the great "David." He probably did another David in bronze, which has disappeared; and he found time also to paint the "Doni Madonna," which is in the Tribuna of the Uffizi. These works may be said to complete the list of those in his early manner. His next two works, the famous cartoon for the decoration of the Great Council Room in the Palazzo Vecchio, and the bronze statue of Pope Julius, are lost to us and we can form but an imperfect conception of them. The works which follow them are in a new and grander style.



In 1505 the new Pope, Julius II., called Michelangelo to Rome and proposed that he should erect a huge mausoleum for the Pontiff's own tomb. The "tragedy" of this tomb is too complicated to be followed in detail. The work was interrupted, first for the colossal bronze statue of the Pope in Bologna, which was afterwards melted into cannon, and then for the painting of the Sistine. Contract after contract was made only to be broken, and the tomb (a mere fragment of the original design) was not finally erected until 1545. The "Slaves" of the Louvre and several other figures, more or less unfinished, were originally intended for parts of this colossal design.

When the commission for the decoration of the ceiling of the Sistine was given him, in 1508, Michelangelo was the first of living sculptors. On the other hand he had done nothing in fresco and very little in painting of any sort. He was ardently interested in his gigantic scheme for the Julian tomb, and it is little to be wondered at that he objected to accepting this new task and protested that painting was not his trade. When the first and better half of the work was shown to the public in 1509 he became at one bound the first painter of the day as well as the first sculptor; for Raphael, later his only rival, was then just beginning his work in Rome. There is indeed reason to believe that the view of this new masterpiece of decorative painting was largely instrumental in the formation of Raphael's new and broad Roman manner. Raphael, the most impressionable and least personal of great artists, could no more resist this new revelation of the grand style in art than could the rest of the world. His work in the Stanza della Segnatura was begun about this time and finished in 1511, while the ceiling of the Sistine was finally completed in 1512. These two young men, of whom the elder was but thirty-seven and the younger but twenty-nine, had between them finally completed and ended the Renaissance as far as the school of form was concerned. Neither they themselves nor any other could do so well again, and the only possible progress for painting thenceforward was in subordinating the search for the line and in following the Venetians into the study of light and color.

It was many years before Michelangelo again painted any-

thing which has survived, and his great central manner is represented in painting by this one example only. In sculpture it endured much longer. The fragments designed for the tomb of Julius are in this style, as is the "Christ" of the Minerva, and the Medici monuments in the Sacristy of San Lorenzo (1525-34) are his greatest achievements in marble.

The "Leda," painted about 1529, has disappeared, and with this one exception he painted nothing during twenty-three years, many of which were occupied with architecture and engineering to the exclusion, even, of sculpture. When, in 1535, Pope Paul III. appointed him chief architect, painter and sculptor of the Vatican, and set him to painting the Last Judgment, he was sixty years of age. This vast picture and the frescoes of the Pauline Chapel, painted between 1542 and 1549, are in his late manner and very different from the works of his prime.

The last years of Michelangelo's life were taken up almost entirely with architecture. He was created architect of St. Peter's in 1547, and that and other buildings absorbed him more and more. A model for the great dome, his last masterpiece, was made in 1557, and the dome itself was completed, strictly on his plans, after his death. Everything else in the building was altered by his successors. He died in 1564, in the eighty-ninth year of his age, the most famous artist in the world, Titian alone, of the great men of his younger days, surviving him. His funeral was solemnized in the Church of the Santi Apostoli at Rome with great pomp, but his nephew secretly conveyed his body to Florence, where it was buried in Santa Croce, and Vasari devotes many pages to the ceremonies held in his honor by the Academy of Florence. Monuments were erected to his memory in both churches.

In considering the personal character of Michelangelo it seems to me that sufficient importance has not been given to one fact. Condivi's statement, as translated by Symonds, is precise: "His prolonged habits of dissection," he says, "injured his stomach to such an extent that he lost the power of eating and drinking to any profit." If we consider Michelangelo as a confirmed dyspeptic from his youth up (for the greater part of his anatomical study must have been done in the early days at Florence) we shall per-



haps have a key to much in his character. His moodiness, irascibility, and suspiciousness, as well as his constitutional melancholy and depression—characteristics strongly enough marked to lead Lombroso and others to consider him insane—may well have flowed from a disordered digestion. How marked these characteristics were a hundred anecdotes show. His rages with his servants and his quarrels with his powerful patrons are well known. In such moments nothing restrained him, yet he was constitutionally timid. Here again we have the express testimony of his friend and pupil, Condivi, and also that of his actions, notably his flight from Florence before the surrender of the city to Clement. He was, says Condivi, “as is usual with men of sedentary and contemplative habits, rather timorous than otherwise, except when he is roused by righteous anger to resent unjust injuries or wrongs done to himself or others, in which case he plucks up more spirit than those who are esteemed brave.” His suspiciousness is best shown, perhaps, in the flaming letter of rebuke he wrote to his nephew, Lionardo, who had hastened to Rome to see him in one of his illnesses, in which he accuses the young man of looking for his inheritance. In his habits he was abstemious and almost miserly. Condivi says: “He has always been extremely temperate in living, using food more because it was necessary than for any pleasure he took in it, especially when he was engaged upon some great work; for then he usually confined himself to a piece of bread, which he ate in the middle of his labor. . . . And this abstemiousness in food he has practiced in sleep also; for sleep, according to his own account, rarely suits his constitution, since he continually suffers from pains in the head during slumber, and any excessive amount of sleep deranges his stomach. While he was in full vigor, he generally went to bed with his clothes on, even to the tall boots, which he has always worn because of a chronic tendency to cramp, as well as for other reasons. At certain seasons he has kept these boots on for such a length of time that when he drew them off the skin came away together with the leather, like that of a sloughing snake.” At one time he and his two assistants slept three in a bed. Yet he was most liberal to his family and friends, providing generously for the first, and giving the lat-

ter many priceless drawings and even statues which he could not be induced to sell. He was proud and had a bitter tongue, and some of his caustic remarks are celebrated. He has been thought to have been envious in his disposition, but it may be said in his defense that a real artistic antipathy underlay most of his criticisms. The art of Raphael he was ill-fitted to understand, and in the case of the others whom he most savagely attacked I own to a strong sympathy with his point of view. Perugino and Francia are the chief of these, and to me it has always seemed that the tradesmanlike perfection and sweet insipidity of their work was a fair excuse for Michelangelo's dislike. On the other hand, it should be remembered that he could praise as grandly as he could damn. His statement that Ghiberti's gates were "worthy to be the gates of Paradise" is a classic, but of Bramante, his personal enemy, he could speak as warmly, saying, "Bramante's talent as an architect was equal to that of anyone from the times of the ancients until now."

He could not get on well with pupils or work with assistants, and though his influence was enormous he formed no true school. When he began the ceiling of the Sistine he engaged several fresco painters from Florence, but soon drove them away. He cannot have carried on the whole work single-handed, as the legend tells us, and there is no doubt that he must have had men under his direction; but mere workmen were all he could put up with. He worked by preference entirely alone, and often at night by the light of a candle fitted to a pasteboard visor on his head. He was at the antipodes of the serene craftsmen who knew their trade and could teach it. To him the incommunicable personal element was the essence of a work of art, and it were better that a work should go unfinished than that it should be finished in collaboration with another. That he was profoundly melancholy his whole work, and particularly his sonnets, show plainly. He was also profoundly religious. In his later years he made many drawings of the crucifixion and other subjects from the Passion of Christ, and he refused to receive any pay for his work on St. Peter's, giving his services for the good of his soul. He never married and, as far as we know, never loved, his friendship for Vittoria Colonna



being the purely platonic love of an elderly man for an elderly woman. He was capable of much more enthusiastic and almost passionate affection for noble and beautiful young men.

In all these traits we see clearly, I think, the artist of the modern, personal and emotional type; the man of nervous temperament, belonging to the *genus irritabile*; the artist who plays upon his soul and draws from it wondrous music; the man of the type of Rembrandt and of Beethoven. In a word, Michelangelo was a great *Romantic* genius.

I know of no more instructive comparison than that between this gloomy genius and his great rival and contemporary, Raphael. Raphael, who was everything that Michelangelo was not; Raphael, with his sunny nature, his troops of friends and his army of pupils; Raphael, with his marvelous achievement of pure beauty and his almost entire absence of personality; he who learned everything from others and yet did everything with a grace no other could compass, and who taught others so well that their work is scarce to be distinguished from his own; whose pictures have no meanings but the obvious one and no emotions but joy, and who was so careless of the personal touch that he could complacently see his design botched and mangled by his 'prentices so long as a palace wall was decorated: Raphael is the most perfect contrast conceivable to the solitary, melancholy Michelangelo, and as perfect a type of the classic temperament in art as the other is of the romantic. No wonder they could not understand or like each other. I know of but one parallel to this contrast of two great contemporaries, and it holds at all points, that between Rubens and Rembrandt.

With this knowledge of Michelangelo's personality let us take up the study of his art. We have already noticed that his production, exclusive of his architecture, of which I shall have little to say, falls into three periods, marked by three distinct manners. The first of these periods, which extends, roughly speaking, from his fourteenth to his thirty-fourth year, may be called the realistic period; the second, extending from his thirty-fourth year to his sixtieth, may be called the period of style; while it would not be unjust to call the last period that of mannerism. It is notable

that almost all the work of the first of these periods that has come down to us is in sculpture. There are but two pictures that are attributed by good judges to this period of his life, and one of these is not certainly his. The "Doni Madonna" is undoubtedly by him, but it was painted well on toward the end of the period. The twenty years of his life in which he was learning his profession and mastering his tools were devoted almost exclusively to sculpture, and this fact set its mark deeply upon all his future production. Whether he were more painter or sculptor by nature, his training had made him a sculptor and a sculptor he remained to the end of his life.

He began, as do most artists, by an imitation of what had gone before him. His first independent work, "The Centaurs," was indeed, as I have said, Michelangelesque in conception and seems like a foretaste of his later work, and this resemblance is increased by the fact that the relief was never finished; but the relief of a Madonna executed about the same time was avowedly an imitation of Donatello. If the "John Baptist" in the Berlin Gallery be really by him, it is also an imitation of Donatello with some faint marks of Michelangelo's later manner, while the "Sleeping Cupid" must have been an intentional imitation of the antique. It was only after his first arrival in Rome that he began to do work of real importance, and the first statue he did there, the "Bacchus," is not very original and certainly not very good. The conception is his own, but the execution is rather in the vein of Græco-Roman sculpture of an inferior kind. Everything is round and puffily modeled, without accent and without charm. It had in its day, and still has, a great renown; yet if he had done nothing else his fame would scarcely have endured. It is in the "Pieta," the "Madonna of Bruges," and the "David" that we shall find the real Michelangelo of the first period; and as the "Madonna of Bruges" is neither so well known nor so significant as the other two, it is to them that we may best devote our attention.

It is important to note here that Michelangelo was born too late to continue the direct tradition of Renaissance sculpture. The time of his birth was, as we have seen, the time of the highest activity in painting immediately preceding the culmination of the art;



but sculpture was in the Italian Renaissance, as it has usually been in the history of the world, at least a century in advance of painting. Sculpture had already reached a point of perfection with Donatello and Ghiberti which it was difficult to equal and in some respects impossible to excel; and Donatello had died, an old man, eight years before Michelangelo was born. The decadence had already begun, and Michelangelo may be said to have stood alone, the one great sculptor of his age, not the continuer of a great school. His master was a pupil of Donatello's and may have imparted to him some of the Donatellesque traditions; but the influence of Donatello, which is visible in some of the details of his work, in the type of the heads and the arrangement of the draperies, is rather like the influence of an old master upon a modern than like that of a teacher upon his immediate pupil. Later he must have been greatly influenced by the study of the works of Jacopo della Quercia. The subtle technique of the older school, with its delicate modeling and half-relief, he neither understood nor practiced. There is no hinting at partially revealed forms in these early works of Michelangelo—everything is pushed to the extreme of realization and the surface is searched to its utmost cranny and polished like glass. The dead Christ of the "Pieta" is perhaps the most wonderful piece of purely realistic sculpture in existence, every vein and cord and muscle studied with the science of an anatomist and the eagerness of a student, determined to master fact once for all. There is already more stylistic convention in the David, but there is also in the conception much realism of an elevated sort. The heavy head and big hands of a half-grown boy look odd on this gigantic scale, but they are only a part of the naturalism of the whole.

These figures are the work of a student—surely the most wonderful student that ever lived—but still a student learning truth, not yet the supreme master who expresses feeling. It is worth noting in passing—I shall presently have more to say of this peculiarity—that the heads of the two figures in the "Pieta" are entirely insignificant, while that of the "David" is a conventionalized and somewhat vulgarized version of Donatello's "St. George." To the period of noble naturalism belongs the "Doni

Madonna," and to it, also, must have belonged, from what we know of it, the lost cartoon of the "Battle of Pisa." It is not merely that the praises that have come to us speak only of its realism—that might be the fault of the critics—but the fragmentary copies of it that remain seem to show us nothing else than a great piece of study, or rather a final demonstration of mastery. Once and for all the master proclaimed to the world his absolute science, his perfect knowledge of anatomy, his ability to draw every conceivable attitude, every possible movement, every difficult foreshortening of the human figure. To test and to display his acquirements—the performance had no other object than this—it was an achievement easy to understand and to applaud, and it was, perhaps, more admired and studied than anything else its author ever did. The school of the young artists of Florence, and Vasari and Cellini, neither of whom could comprehend the poet in their master, exalted this as his greatest work.

This long and intense study of natural fact completed and perfect mastery finally attained, Michelangelo had now to show what he meant to do with his knowledge. The time for self-expression had come, and the opportunity came with it. As a sculptor the commission for the decoration of the Sistine ceiling was not grateful to him, yet it is the only one of his vast schemes that was ever carried out as he planned it. There can be little doubt that he enjoyed invention more than execution, and he was constantly planning monumental schemes which could be carried out, in sculpture, only by that collaboration with others of which he was incapable. The more rapid art of painting has made it possible for us to know what such a Michelangelesque scheme of decoration might be like; and, sculptor as he was, this great work of painting is perhaps the highest and most complete expression his genius ever found. How essentially he remained a sculptor, however, even in his painting, a slight study will demonstrate. There is not a composition nor a part of a composition in all this series that is not capable of treatment in bas-relief, while the isolated figures of prophets and sibyls would make admirable statues. The compositions are all on one plane in the true sculptural style—indeed, without nearly the scope of perspective and pictorial effect that Ghiberti allowed



himself in his reliefs—and landscape, ornament, variety of texture in stuffs are entirely absent. The figure and nothing but the figure, nude or draped, but treated always from the point of view of pure form, that is all that he deigned to give us. Something of the same temper had been shown by Luca Signorelli in his frescoes at Orvieto, only a few years before, but by no one else.

But the sculptor turned painter found a new inspiration in his new work. The patient labor, the intense study of detail, the determination to realize to the utmost were no longer possible. The surface to be covered is estimated at 10,000 square feet, and the design is said to contain 343 figures. All the conditions of the work rendered the close study of nature impossible, and this host of figures could be done at all only in virtue of a system and a convention. They were necessarily painted from more or less slight sketches and indications, and the artist was forced to rely upon his vast store of accumulated knowledge and to find a style and a type which thenceforth dominated his work. Add to this the stimulus which these subjects from the Old Testament gave to his deeply poetic and religious mind, and we can begin to understand the result. He had studied the human figure until he knew it by heart, as few men, perhaps no man, has ever known it, and now, set free from the slow toil of cutting and polishing, set free from the dominating presence of the model, brooding upon the mighty myth of the Creation and the Fall of Man and filled with the spirit of the ancient prophets, he set to work to *invent*.

The grandeur and majesty of these frescoes is so supreme that a cold analysis of them seems almost an impertinence. They are the highest expression of sublimity in all pictorial art. Yet as one cannot hope to express the grandeur of this style of Michelangelo's, one may be pardoned for trying to express some of its other qualities.

Let us first note, then, that as yet this grandeur is by no means incompatible with beauty. The figures are systematically enlarged and idealized in a special way until they become colossal, rugged, titanic—primeval powers rather than human beings—but they are beautiful colossi. The thorax of the "Adam" is enormous and the arms are superbly muscular, but in addition to this suggestion

of gigantic strength there is a grace and suavity of line that render him only less beautiful than the "Ilissus" of Pheidias. The female figures are idealized in precisely the same way as the male and for the same reason—to carry the weight of thought Michelangelo placed upon them. There is no commoner criticism of Michelangelo than that he was insensible to feminine beauty—and indeed the sweetness of Raphael or the charm of Coreggio would be as out of place in these austere and solemn visions as Perugino's smiling landscapes or Angelico's painted wings and patterned draperies. Michelangelo's women are true mates for his men—grandly thewed and heavy-limbed—but they are nevertheless intensely feminine. The "Eve," mighty mother of the race though she be, is wonderfully lovely, while the "Libyan Sibyl"—she who, turning sidewise, lifts an open book in her outstretched arms and shows her face in profile over her Herculean shoulder—is one of the most gracious, noble, and winningly feminine presences in all art. We are not of the race of these giants; if we were, it is such giantesses that we should love—giantesses that are not less but more feminine for being framed on the great scale of those huge creatures that loved before the flood.

We have all heard of Michelangelo as a master of drawing, and we have all heard that he was no colorist. The greatest of draughtsmen he undoubtedly was, but let us not imagine that mere "good drawing"—mere accuracy of shapes and sizes and the "placing" of joints and muscles—is what distinguishes him. His figures are often faulty in proportion, impossible in action, and exaggerated in outline; but every line of them is full of intelligence, of knowledge, of meaning, and of style—full of art and of the incommunicable, inexplicable something which is the artist's mind. This is what all great drawing is, and it is a very different thing from "good drawing." Anyone who understands Michelangelo's work at all will know what he meant when he said that Titian could not draw, and yet Titian was often more correct in his measurements and proportions than Michelangelo himself.

So, also, the statement that Michelangelo was no colorist must be taken with a condition. He was not a colorist in the sense that Titian was a colorist, or Rubens; he was not a colorist as are



those artists for whom color is the chief means of expression and whose poetry is in their palettes. Splendor and richness and mystery were not his. Romanticist though he was, his is the art of form, and the cold light of the sculptor's workshop is ever about him. Yet two of the foremost artists of our own day, both of them powerful colorists, George Frederick Watts and our own John La Farge, have recently expressed their admiration for the mastery of color, within the limits he had set for himself, shown by Michelangelo in these frescoes, and have testified to the perfect and appropriate harmony of their pale tints.

After the completion of the Sistine ceiling Michelangelo turned again to sculpture, and the Julian tomb and the tombs of the Medici occupied all of his middle life that he was suffered to devote to pure art. But the sculpture which he now produced was very different from that of his early period. For good or evil his Michelangelesque manner was formed and his type of the human figure established. The exaggerated bulk of the chest, the enormously enlarged and muscular arms, the large hands and small feet, the comparatively small legs and, in particular, the lower leg greatly shortened in proportion to the long thigh—these have become permanent elements of his work from which he is never again to free himself. Just why some of these conventions were adopted must always remain a mystery. In some strange way they answered the needs of his mind and served for the expression of his thought. Other parts of his system are more explicable, but at any rate his treatment of the figure had become a system and the epoch of close study of nature (an epoch through which every great individual artist must pass) was forever closed.

Besides this fixing of his scheme of the human figure there are other great changes which separate the Michelangelo of the "Slaves" and the Medici tombs from the Michelangelo of the "Pieta" and the "David." The most sculpturesque of painters has become the most picturesque of sculptors, and his work in marble is henceforth dependent for its effect, more than that of any other sculptor of high rank, upon light and shade, and, in many of the most impressive examples, upon incompleteness. There are several reasons why it will be well, in considering the sculpture

of Michelangelo's great middle period, to confine ourselves to the Medician tombs in the Sacristy of San Lorenzo. In the first place they are, by universal consent, his grandest and most impressive work. In the second place they constitute the only series of statues by him which are seen together in the situation for which he intended them, and with the lighting which he himself arranged. The Julian monument was finally entirely altered from its original design and placed in another church than that for which it was intended, while the fragments originally meant for its decoration are widely scattered. In many cases it is impossible to tell whether certain figures were or were not parts of its composition. In the Sacristy of San Lorenzo Michelangelo was architect as well as sculptor. The setting was made for the statues, and while the design, as he originally conceived it, was never carried out in its entirety, what there is of it is to be seen to-day very nearly as he meant it to be seen.

No person, at all impressionable by art, who has ever stood in that chapel is likely to forget his emotion. Nothing in the whole range of art is so overwhelming, so crushing, so "intolerable." Its enormous melancholy catches one by the throat and chokes one with the poignancy of the sensation. One gazes with a hushed intensity, one cannot tear one's self away, and yet one breathes a long sigh of relief when one gets out at last into the sunlit air of Florence. It is only long afterward, and in cold blood, that one can analyze the impression that one has received, and then one is surprised to find how large a part of it is due to the artfully arranged lighting and to the unfinished state of the statues. In this analysis one is much helped by the study of casts. Full-sized casts of these groups are to be found in the museums, but they are seldom lighted as Michelangelo lighted the originals. There are also, in our art schools, small-sized casts of them, the origin of which is doubtful. Whether the originals of them, preserved in Florence, are Michelangelo's studies for the full-sized figures, or are copies by another hand, is a question I shall not undertake to decide. At any rate they are *completed* and do not show the unfinished of the marbles, and they thus become extraordinarily useful as materials for the study of Michelangelo's methods. From the



study of these casts, large and small, one soon becomes aware of the extraordinary importance of light and shade and of incompleteness as elements in the total effect of Michelangelo's greatest work in sculpture. Placed anyhow or anywhere, and no matter how lighted, the figures from the pediment of the Parthenon still remain the same serenely, incomparably perfect embodiment of majesty and beauty. Not so with the personal, romantic sculpture of the master of the Renaissance. Take the "Lorenzo de' Medici" from his niche and place him in a plain side light, and, together with the brooding shadow of his helmet upon his face, half his mysterious dignity has vanished and he seems almost commonplace. Disengage the face of the "Day" from its stony mask and its strange horror has evaporated. The "Evening" is entirely enveloped in a veil of unremoved marble, and seems verily to breathe the solemn mystery of twilight. Complete him and he is a middle-aged athlete in repose. What is left is the Michelangelo that his science and his training had made him, the academic master of anatomy who epitomized the learning of the Renaissance, the decorator whose pompous forms and writhing limbs already foreshadow the epoch of rococo; but the personal element, the poetry of the man, is gone.

Now, that the lighting was intentional there can be no manner of doubt, but about the lack of finish there has always been, and perhaps always will be, much discussion. It is certain that Michelangelo was constantly called away from one task to have another imposed upon him, and it is probable that he sometimes deserted a statue because of veinings in the marble or because his impetuous chisel had bitten too deeply into the stone. But it does not seem to me possible that both these causes together can account for the singular fact that there is hardly a statue by him in existence, later in date than the "David," that is finished throughout by his own hand.

The "Moses" is nearly, but not quite, finished, and we know that it was one of the earliest of the figures intended for the Julian tomb; the "Christ" of the Minerva was botched by a journeyman and the head, hands and feet were ruined; the greater number remain, as he left them, more or less unfinished. Many of his early

works were also left incompleated, and this before the dragging hither and thither had begun. There must have been other causes in the nature of the man for this peculiarity, and one of them he himself gives us frankly. "He could never content himself with anything that he did," says Vasari; "nay, Michelangelo would often remark that if he were compelled really to satisfy himself in the works to be produced, he should give little or nothing to public view."

It is notable that the parts most frequently left unfinished are the head and the hands, and this recalls the remark I have already made about the insignificance of type in the heads of much of his early work. In his drawings the head is often omitted entirely or indicated only by a scrawl. As an anatomist he undoubtedly felt that, structurally, the head is of less importance than anything else in the figure, having the smallest influence in determining the action and movement; and it was of least importance to him artistically because the whole scheme of his art was based upon the expression of the nude figure. When he did take the pains to do a head it was a grand sculpturesque abstraction of anatomical forms based on the same principles as his ideal of the body. He is almost the only modern artist who has left nothing resembling a portrait. His finished statues have rather expressionless masks than human faces, and he may well have felt that it mattered little, the attitude once established, who finished the head or whether or not it was finished at all.

More than this, however, it is impossible to suppose that Michelangelo was himself insensible to that strange charm which is so visible to all of us in his unfinished work that it has recently become the fashion to seek for it deliberately and to plan for it in the clay. He was continually striving to infuse into sculpture meanings and thoughts which it was not meant to express and could not hold. His deep poetic spirit tried to express itself through the medium of the most simple, classical and formal of the arts, and he was unaided by the delicate technical methods of the earlier sculptors of the Renaissance which he never understood. What more natural than that he should have found the sentiment evaporating as the work advanced, and should have, half despairingly, left to the



unfinish of the sketch the suggestion of things which the cold completeness of the finished marble could never convey! He "could not content himself" and his statues remain more impressive in their incompleteness than the finished works of any other modern.

When the old man again took up painting his invention had stiffened and his poetic fervor was frosted, while the age of naturalistic study was long past. The "Last Judgment," as an exhibition of acquired knowledge, is stupendous, but in its manner has become mannerism and the grandiose is inflated to pomposity. It has little or no real feeling, its color (what is left of it after the tinkering of the "breeches maker") is harsh and unpleasant, and its writhing and foreshortened figures are swelled into monstrous bulk, while they are posed in attitudes hardly possible to the supple frames of adolescents. Of the still later frescoes of the Pauline chapel it is scarce charitable to speak. Every trace of real greatness is gone from them, and they seem mere rant and mouthing. The master himself said, "I shall do regrettable things," and he was right. The worst of his intolerable imitators could do nothing worse than these pages of windy and empty rhetoric.

Of Michelangelo the architect I am not qualified to speak. In painting, in sculpture and in architecture, Michelangelo was largely responsible for the form which was taken by the decadence, but it would be pushing a point too far to hold him responsible for the decadence itself. When a thing is ripe there is nothing for it thereafter but to rot, and the decadence would have come at any rate. It is the peculiar good and ill-fortune of those who come at the supreme moment of perfect ripeness, that they leave behind them an unsurpassable glory while they are held accountable by some for the corruption that follows. In the history of the arts of form Michelangelo and Raphael, romanticist and classicist, occupy together this peculiar eminence, and from them flow two streams which pervaded the decadence, one freezing into the icy stateliness of the academic, the other boiling up into the turgid declamation of the Baroque. The greater the personal force of an artist, the deadlier, generally speaking, is his influence; for the men of greatest personality are the men of greatest faults and greatest virtues, and their faults are imitable, while their virtues

are not. If the works of Michelangelo were all destroyed and we could judge of his power only by the attractive and destructive influence which he exercised upon his successors, we should still be justified in supposing that the force which had been so profoundly felt must have been that of one of the greatest artists of any country and of all time.



# HISTORIC METHOD OF JULES MICHELET

GUSTAVE LANSON

MICHELET associated the awakening of his vocation for history with three incidents of his childhood.<sup>1</sup> His mother taught him to read in a book of Dreux du Radier's, the "Queens and Queens Regent of France," and in the "Bibliothèque Bleue." When he was twelve years old she took him to that museum of French monuments where Lenoir had brought together fragments of the royal tombs of Saint Denis, and other fragments of the art of the Middle Ages. At twenty years of age, in that journey to Ardennes in the course of which he discovered for himself a little of the land of France (it was the first time he had ever been far from Paris), he had felt profoundly the life of France, the ancient life of the people, as he listened to his Aunt Alexis' account of the legends and living history concerned with the family and the region.

Without discussing the reality of these impressions, it may be said that they were not imperious. Up to the eve of 1830, Michelet was in search of a path, and when he finally settled down to history, the method he brought to it and which is seen running through the "Introduction to Universal History," the "History of Rome" and the "History of France" shows traces of stumbling and of early tendencies that were later to be abandoned. It is my desire in this article to explain how he constructed this method little by little, combined the tendencies of his own inner nature with influences of education and reading, under the pressure of a certain environment and of certain circumstances.

The father of Michelet was from Picard and his mother from Ardennes, and to this parentage he attributed the contrasts of his nature: to the Picard element an alert and active intelligence, an energetic and supple elasticity, a vivacity quick in anger; to the

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<sup>1</sup> "Ma Jeunesse," p. 34, p. 44 and pp. 267-269. For the "Bibliothèque Bleue," p. 279. But perhaps the page was written by Mms. Michelet, who may have availed herself of Vol. II. of the "Histoire de France (ed. Lemerre, pp. 128-129). It is difficult to know what is by Michelet in the volumes published by his widow. See also, "Sur les Chemins de l'Europe," p. 303.

Ardennes element an ardent earnestness and depth of feeling. The two families from which he was descended, close to the people as they were, had still been refined by the influence of clerical life and by the artistic professions of music and printing.<sup>2</sup>

His childhood without joy and without consolation, a ruined father and a sick mother, wretched and often-changed lodgings in narrow streets at the end of obscure courts of old Paris, old clothes, too large or too small and always ridiculous, hunger and cold that made him a martyr for years, anxious incertitude for the morrow, the persecutions of his playfellows, sorrows, the death of his mother, the death of his friend Pouisot—all these privations, mortifications, and chagrins produced in him a concentrated, tremulous, and explosive sensibility, a melancholy tendency to feed upon suffering, and an unhealthy facility in magnifying grievously every impression. By the least shock his whole organism was shaken to such a degree that it would seem as if it must have been quite deranged. But it resisted. With no one to depend upon but himself (as a child Michelet had that experience), unkind fortune and human malignity excited in him a prodigious energy of reaction: not the serene and smiling energy of the strong, but the feverish energy of despair struggling for life.<sup>3</sup>

With an affectionate nature, troubled by a profound craving for tenderness, he could not be satisfied with the friendship even of Pouisot. Dreams of love haunted<sup>4</sup> him as they did Rousseau. Woman troubled him and possessed him. Repelled through his native delicacy by the ordinary pleasures of a young student, which did not accord with his sense of the fitting,<sup>5</sup> he transformed the solicitations of his temperament into imaginative and æsthetic emotions. The reading of Theocritus, Virgil, and Catullus, in which he attained the tranquil joys of art,<sup>6</sup> were his nights of voluptuousness. But we may see in such troubled chastity the reason why

<sup>2</sup> "Ma Jeunesse," ch. 1 and 2.

<sup>3</sup> "Ma Jeunesse," p. 96, p. 99.

<sup>4</sup> "Ma Jeunesse," pp. 43, 60; livre I., ch. 8; livre II., ch. 10, 11.

<sup>5</sup> "Mon Journal," p. 280.

<sup>6</sup> "Mon Journal," pp. 42-43, 139, 181. "Ma Jeunesse," pp. 200-201.



this laborious and lofty spirit mingled the thought of woman with his most serious labors, and at times in so unexpected a fashion.

Early in life, when reality wounded him, he was wont to take refuge in books. They freed him from the miseries of the world, and opened to him boundless and luminous space. It was his studies that marked the epochs of his life of thought and emotion: "Robinson Crusoe," the "Imitation," Virgil, Rousseau, and Byron.<sup>7</sup> He pursued his college studies with entire good faith, and was a good and zealous student. He took the honor prize for a French thesis at the *Concours Général*. Even after leaving college he made Latin and Greek verses.<sup>8</sup> Literature and poetry nourished his spirit; his culture was all literary and classical. He studied science for a brief moment under the influence of Pouissot, the medical student.<sup>9</sup> Looking over the list of his studies<sup>10</sup> up to 1823, we find among them all the Greeks and many of the Latins, our seventeenth and eighteenth centuries, the Bible, and not a little of Locke, Condillac, Laromiguière, De Gerando, Dugald Stewart. There was nothing to indicate his vocation for history. His thesis on Plutarch (1819)<sup>11</sup> is but a literary dissertation. If he had a specialty between his twentieth and twenty-fifth year it was philosophy. He wrote in 1820 that "the study of history did not satisfy" him, and that he preferred "the kinds of knowledge that form the understanding."<sup>12</sup> In the projects of work which the feverish activity of his spirit ceaselessly conceived, he dreamt only of vast generalizations, constructions of imagination and of logic, in which literature and philosophy played a more important part than history.<sup>13</sup>

It may be said that two ministerial decrees made Michelet an historian: the decree of 1822, which took him from a class in letters in the *Lycée Charlemagne* to make him a professor of history at Sainte-Barbe; and the decree of 1829, by which M. Mon-

<sup>7</sup> "Ma Jeunesse," pp. 34, 37, 100, 200, 204, 316, 321. "Mon Journal," pp. 78, 286.

<sup>8</sup> "Mon Journal," pp. 218, 223.

<sup>9</sup> "Mon Journal," pp. 44, 56, 61, 69.

<sup>10</sup> *Ibid.*, pp. 331-372.

<sup>11</sup> Reprinted in "Mon Journal," p. 373.

<sup>12</sup> "Mon Journal," p. 7.

<sup>13</sup> Cf. "Journal de mes Idées," dans "Mon Journal," pp. 291 sq.

bel, separating the two chairs of history and philosophy that Michelet occupied at the Normal School, forced upon him the teaching of history, despite his request to teach philosophy. So strongly, even in 1829, did his preference draw him to philosophy.<sup>14</sup>

Meanwhile, the vocation was in him and slowly found its way to the light. He made this note in his journal in 1822: "While continuing my study of philosophy . . . I feel the need of mingling history with philosophy. They complete each other."<sup>15</sup> It is to be noted that it was upon a basis of history that he dreamed of erecting his literary and philosophic constructions, witness "The Character of Nations as Found in Their Vocabulary" (an idea suggested by Sophocles), "Evenings of Aspasia or Hypatia" (history of Greek literature), "The Philosophy of Thucydides," "Literary History of France in Its Relations to the Political History of the Republican Spirit in France in the Sixteenth Century," "History of Humanity," etc.<sup>16</sup> There appears in these works an obstinate tendency in the direction of a vocation still obscure, which Michelet, poet, and, as he thought, philosopher, was unconsciously obeying. But how free was the intelligence which he was to bring to bear in these studies? Had he convictions, passions political or religious, capable of determining the historian in the choice of a method and in the elaboration of facts?

The son of a Republican who even had relations with Babeuf,<sup>17</sup> Michelet saw with joy the fall of the empire, although this event closed the printing establishments and thereby ruined his family.

<sup>14</sup> Cf. G. Monod, Michelet *Professeur à l'Ecole Normale*, "Revue des Deux Mondes," 15 Dec. 1894.

<sup>15</sup> "Mon Journal," p. 306.

<sup>16</sup> Cf. "Journal de mes Idées," passim.

<sup>17</sup> I can hardly believe that Michelet's father printed a pamphlet of Babeuf's, simply because he met Babeuf in a diligence, without any other relationship such as would explain it ("Ma Jeunesse," p. 10). For the rest Michelet, perhaps because of his temporary devotion to royalism, seems to me to have left in the shadow the political education which he should have received from his father. Perhaps it is Mme. Michelet, the too partial editor of "Ma Jeunesse" and of "Mon Journal," whom we should reproach. Meanwhile in reading closely, and in bringing together words scattered here and there, one becomes convinced that the father of Michelet was a strong republican of very advanced opinions. See also the "Préface de la Révolution," (1847), ed. Flammarion, p. 45.



In the return of the Bourbons, he felt above all the enlargement of his academic life, the certitude that he would not leave his bones upon some remote battlefield of Europe; he was confident that intellect would again be valued.<sup>18</sup> Crowned at the *Concours Général* by the Duc de Richelieu, presented to the ministry and to the Duke Decazes by Villemain, his professor, he felt in his heart no hostility to the restoration, nothing that would prevent him from taking a place in that régime. Sometimes, no doubt from the influence of his father or of Pouisot, liberal and popular sentiments fermented within him. His journal for May and June, 1820, shows him excited in favor of Benjamin Constant, and of General Foy, sympathizing even with the riot. He was soon to write "Louvel<sup>19</sup> has avenged Ney." These enthusiasms seem to me to have been but fires of straw. Ordinarily he was disposed to find a ground of agreement and conciliation with those who questioned him, to take in a good sense the words of his adversaries, to look upon the good side of their doctrines. He said as little as possible. He feared the *procès de tendance*.<sup>20</sup> He had suffered enough—he did not wish to shatter what had been mended. He owed something to those who belonged to him, he wished to live, to "arrive." There were no ideas for which he was willing to return to those old companions of his childhood, cold and hunger.

With a fine suppleness he cultivated liberal friendships, Dus-sault, his old professors, Dubois and Villemain; and he provided for himself the royalist and Catholic protectors, the Abbé Nicolle, M. Masure, friend of M. Frayssinous, Ballanche, Lamartine. There was such confidence in him that he was called in the case of Mlle. de Berry.<sup>21</sup> "The sun of July" was the basis of the reserve of Michelet; he was submissive, not attached, to the Restoration. His democratic sentiments saw daylight; but he was bound to no party. He later became the professor of the Princess

<sup>18</sup> "Ma Jeunesse," pp. 74, 77, 175-180. I find no trace before 1830 of the obsession of Waterloo; in "Ma Jeunesse" no trace of anglophobia.

<sup>19</sup> The assassin of the Duc de Berry ("Mon Journal," p. 40).

<sup>20</sup> "Mon Journal," pp. 57, 272.

<sup>21</sup> Cf. "Preface de Rome."

Clementine. In reality—and it is this that guaranteed his liberty as an historian—he had, in 1830, no political opinion; he had social tendencies. He could speak well of all régimes, as he could serve them, because he had none of his own that he desired, or would defend. His republicanism, if he was republican (a matter with regard to which he was perhaps himself in doubt), was an ideal for him, not a doctrine, still less a programme of action. He was neutral, then impartial. As for his religion he said, “I have never been a Catholic.”<sup>22</sup> But Proudhon, who set him down for a “zealous Catholic” under the Restoration,<sup>23</sup> was not wrong, judging by appearances. Michelet had never been baptized. Even after the Concordat his mother, though the niece of a friar, had not brought him to church.<sup>24</sup> It was of his own accord, after the death of his mother, that he went in 1816 to ask baptism at the church of Saint Médard.<sup>25</sup> He was a deist in the fashion of the “Savoyard Vicar,” replacing Protestant pietism by a mystic Catholicism, which the “Imitation” had nourished in him. He loved the Catholic legend, the pomp, the morality of Catholicism. He kept his Sundays and feast days holy by reading the Gospel. This, he said to himself, sufficed, without explicit or implicit adherence to dogma.

For the rest, what career in 1816 opened itself to a young man who was unbaptized? He went, then, to baptism, remaining what he was. But what he was he did not tell. He called himself Catholic, and, except in the privacy of his journal,<sup>26</sup> he did not define precisely the distance that separated him from orthodox Catholics. His rich nature needed but to turn itself round; he did not need to counterfeit belief. He presented himself to people on the sides that pleased them, the sides of tender mysticism, poetic religiosity, spiritual fervor.<sup>27</sup> Adroit and sincere at once, it is not easy to say where address ends and sincerity

<sup>22</sup> “Mon Journal,” p. 210.

<sup>23</sup> Cf. Eng. Noël, “Michelet et ses Enfants,” p. 112.

<sup>24</sup> “Ma Jeunesse,” p. 36. “No one had ever taken me to the services.”

<sup>25</sup> “Ma Jeunesse,” p. 211, note 1. The whole chapter on the baptism of Michelet was written—her own statement says so—by Mme. Michelet (cf. p. 211, note).

<sup>26</sup> “Mon Journal,” p. 220.

<sup>27</sup> See “Mon Journal,” pp. 64 and 78. But he does not speak thus always, nor publicly.



begins. Synthesis, conciliation, were a need of his spirit; and we see that in 1840, when policy no longer prompted it, but rather the contrary, he took his children to mass; in 1841 he publicly declared himself a Catholic at the beginning of a course on the Reformation. He was then sincere in so calling himself: the address consisted in not explaining in detail in what sense he was a Catholic.

He even allowed himself to enter into some sort of understanding with the Catholic party; he affiliated himself with the *Société des bons livres*; and it has been asserted that he was called to the Preparatory School (Normal School) to reassure the Catholics. He certainly gave Catholic instruction there, as he agreed to do in the letter of candidature which he addressed to M. Frayssinous.<sup>28</sup> From 1828 Luther undoubtedly attracted him; and set him free in 1830. After 1830 he no longer had to take precautions nor keep his opinions to himself. But by that very procedure it is plain to see that he did not become an enemy of Catholicism: his freedom of speech remained always sympathetic to the Church.<sup>29</sup>

Michelet was not forced to construe history either for or against religion, as was Joseph de Maistre or Voltaire. Neither of these two sides could tyrannize over his spirit. Nor did he assign the power of the bourgeoisie as the final goal for the fifteen centuries of the history of France, like Guizot and Augustin Thierry. In the elaboration of a method he was directed only by disinterested impulsions and reflections.

Michelet formed himself outside of and independently of the French school of history. Above all, he felt himself to be a philosopher, and when he set himself to finding a method for writing history, it was not a method based merely upon erudition that he wanted—not merely rules for the criticism of documents, an art of determining authenticity, integrity, and sincerity; he was in search of a philosophical method, a plan and principles for a universal systematization of all the facts and of all histories; he sought, in a word, the means of constructing a philosophy of history. That is

<sup>28</sup> E. Noël, p. 50, 57.

<sup>29</sup> Cf. Monod, "Revue des Deux Mondes," 15 Dec., 1894, p. 901.

why he admired Guizot, as the man who had first seen the "history of ideas under the history of facts."<sup>30</sup> But Guizot's strong tendency to abstraction did not satisfy him, nor did the colorless exactitude of Sismondi.<sup>31</sup> He was looking for something more than these writers could give: he was himself romantic.

He became what he was, not by surrendering to the influence of Victor Hugo and the "Cénacle," but by the evolution of his own inner life. If we except Lamartine and his "Meditations,"<sup>32</sup> Michelet seemed to remain indifferent enough to the poetic, dramatic, and romanesque productions of the innovators. He is indeed rather defiant and hostile. His love for the ancient classics resisted romanticism.<sup>33</sup> Nevertheless, he knew and felt that he bore his part in the movement. In 1820 he made this remark: "We are all, more or less, romanticists; it is a malady that is in the air we breathe."<sup>34</sup> Outside of this contagious fermentation in the social atmosphere about him, he drew his romanticism from the source in Rousseau and Mme. de Staël, in Shakespeare, Walter Scott, and Byron: he bore it in his own lofty and sad soul. This disposition developed in the presence of the romantic past (churches and castles of the Middle Ages), and in romantic places (the Rhine country). There existed, then, in him the stir of feelings other than those of the mere historian. In his history there is felt the presence of the romanticist, the lyric poet, the artist, in love with images and sensations, and painfully troubled by the problem of man's destiny.

The romantic temperament produced in him its usual effect. It broke down the barriers of literary form, and dream of a history that should be epopee, drama, ode, painting, and metaphysical study—and all these things at once. He did not know what he wanted when he began to look about for a method, but he knew that he would not find it in France—Augustin Thierry,

<sup>30</sup> "Préface de l'Histoire de France," 1833.

<sup>31</sup> The honored Sismondi—"He is a father to all who read or write history." *Lettre*, Oct., 1828, *dans* "Fifty Years of Friendship."

<sup>32</sup> "Mon Journal," pp. 4 and 340. He read also in 1829 [9?] the "Plays of Clara Gazul."

<sup>33</sup> "Mon Journal," p. 63.

<sup>34</sup> "Mon Journal," p. 74.



who had the color, lacked the philosophy. The first revelation of an historic method came to him through the medium of the Scotch philosopher Dugald Stewart. Reading, in 1824, the third volume of the "History of the Sciences,"<sup>35</sup> he was there referred to Victor Cousin. The translator of Dugald Stewart in fact gave, in an appendix, a fragment from the course of 1817, in which Cousin showed that "the real is not the true," that above the "facts and the events of the real, exterior world" hover "the facts and the events of the inner world of ideas," that this latter world is reflected and realized in the former. In this indication Michelet saw the means of making the metaphysics of history, that is to say the generalization, "the simplification of the chief masses of facts."<sup>36</sup> Just there is the point of departure of historic symbolism, the central principle around which all Michelet's later acquisitions group themselves.

The importance of the principle laid down by Cousin cannot be exaggerated: it was nothing less than the principle of German metaphysics, which is expanded in the system of Hegel, the affirmation of the identity of the real and the ideal, of the coincidence of the world of logic and the world of nature. While, by this principle, history is invited to read ideas into facts, it receives at the same time the means of constructing the ideal edifice with the débris of the real: monuments and texts are often mute, or contradictory, or incomprehensible to the critic, but for the metaphysician, the universal illumines itself from the light which he carries within him. By dialectic the mind fills the gaps, and lights up the obscurity of facts: it has the right to affirm that what it perceives as necessary is real. Thus the past reveals itself to the historian in his thought, and history becomes "a vision," "an apocalypse." The romantic method of Lamennais, of Hugo, of Lamartine, is no longer only a process of artistic expression; it is a kind of knowledge. And henceforth nothing escapes the historian. He is no longer in ignorance and in doubt; he restores an epoch as Violet le Duc a château, according to the plan his philosophy

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<sup>35</sup> "Mon Journal," p. 352.

<sup>36</sup> "Mon Journal," p. 299.

marks out, and he can propose to himself seriously the "resurrection of life in its fulness and completeness."

But Cousin furnished no means of carrying out these ideas. A note by Buchon, in the same volume of Dugald Stewart, led Michelet to Vico,<sup>37</sup> where he found no longer a vague principle, but a precise art. Michelet has told us what he owed to Vico—the primary sources of history and progress, "the fecund principle of a living power, of a humanity which creates itself."<sup>38</sup> He wrote in 1831, "The word of the *Scienza Nuova* is this: humanity is a work by itself. God not only acts upon it, but through it. Humanity is divine, but there is no divine man."<sup>39</sup> This theory reacts at the same time against Bossuet and Voltaire. Great men neither impose the will of God upon humanity, nor their own will; they are representatives who do not create the future by their individual energy, but resume the past or disengage the aptitude, the will, of their epoch. But Vico reduced the great men of ancient legend to the ideal value of symbols: Michelet, as much because he is a poet as because he treats of historical times, could not take from the great men of Rome or of France their living reality: while remaining men they are symbols; and that statement implies both the nature of his art and his method.

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<sup>37</sup> It has often been held that Michelet knew Vico about 1821, but Mme. Michelet ("Mon Journal," pp. 298 and 309) was certainly deceived. Michelet read in 1822 (Feb.) the first volume of the "History of the Science" (p. 347). But there is nothing said of Vico there, any more than in the second volume. The translation of the third volume, in which Vico is mentioned, did not appear until 1823. There can be no question of the original English (the articles in the *Encyclopædia Brit.*): for it is a note of Buchon that names Vico. It is true that Michelet read in 1821 the "Philosophy of the Human Mind" of D. Stewart (p. 347); but I find no trace of Vico there. For the rest Michelet, who records, among his studies, Vol. III. of Dugald Stewart, does not record Vico before July (pp. 352 and 355). In the journal of his ideas, it is in June, 1824, that he tells of commencing his translation of Vico. He would then have remained three years (1821-1824), without reading the "*Scienza Nuova*," and without taking anything from it. Finally the fragment of "Mon Journal," (pp. 296-305) entered under date of 1821 is surely subsequent to 1825. There is mention of Vico, but also of Stewart's third volume, read in 1824; of the fragment of Cousin known through that third volume, and finally of Herder, to whom Michelet was conducted by Quinet—but not until 1825. The fragment is connected with memories of 1821, but its development is not of that epoch.

<sup>38</sup> Préf. de 1869, p. 13 (ed Lemerre).

<sup>39</sup> "Préface de l'Histoire Romaine."



I would not venture to say that he learned this lesson all at once from Vico. I do not find in him indications of it until after he came to know Herder and Quinet. On the contrary, at the first Vico led him to sociological studies, and to the comparative method; he gave him the idea of seizing the historical content of everything that history proper had up to that time neglected—languages, law, literature. His imagination was excited and eager to seek for analogies and points of agreement in the different series of facts which represented the life of humanity. He confirmed himself in the philosophic tendency to gather together the indices of the life of the species, and of its general forms, rather than the characteristics or distinctive singularities of individuals, nations, and epochs.

The decisive event in the development of Michelet occurred when he met Edgar Quinet, in May, 1825, at the house of Cousin. Quinet was also in search of an historic method, and for a method which would embrace poetry and the philosophy of history; and, not finding one in France, he went to look for it in Germany. He revealed Germany to Michelet. He showed him the way, he loaned him German books, of which he had read very few.<sup>40</sup> A month after their first meeting Michelet set himself to learn German.<sup>41</sup>

And all at once Quinet discovered Herder for him. He had learned German to translate "Ideas on the Philosophy of History." The work did not appear until 1827, but in 1825 he read to Cousin parts of his introduction. As much through conversation with his friend as by the direct reading of Herder, Michelet penetrated into the profundity of German thought.

Herder taught the continuity of human development; he held that "revolutions in human affairs are necessary, as the waves to the stream, if the stream is not to become a stagnant marsh."<sup>42</sup> And in this connection he believed that it was not necessary to think that the past was made for the future, and was but a means to a predestined end. Each people, each epoch, as each being, exists

<sup>40</sup> A little of Kant, some works of Herder, in translation.

<sup>41</sup> "Mon Journal," II., p. 311.

<sup>42</sup> Trans. Quinet, Vol. II., pp. 153-156.

for itself, is an end in itself, has its own goal, which is to realize the perfection of its type, and has its function in the history of humanity proportioned to the beauty, power, or benevolence of this type.<sup>43</sup> It is necessary, then, to study each nation, each epoch in itself, the Roman Empire as the Roman Empire, and not as a preparation for Christianity.

"History is the science of what is."<sup>44</sup> It is not necessary to impose an order, an explanation of it in the name of a personal belief. Providence, which rules the world, reveals itself but in successive events: "True philosophy knows the secret of celestial councils only by facts which touch its experience. . . . Seek to see simply what is; as soon as you have perceived it, you will perceive, in most cases, why that which is could not be otherwise." And there we have the history of theology liberated, yet still remaining religious.

History is an inductive science. "Peoples change, are modified according to the epoch, the place, and their inherent character."<sup>45</sup> From these three forces, in conflict or in equilibrium, results the course of civilization. There is the law of history. Humanity is, and has been, just what the circumstances of time and place have made it, nothing more and nothing less."<sup>46</sup>

Progress is not continuous. Each civilization is worth more or less. Human development is a broken line. On the whole, however, there is progress; at the last evil is destroyed or destroys itself; through a thousand oscillations, humanity moves more and more in the direction of reason and justice, that is to say, towards more of humanity.<sup>47</sup>

Although Quinet preferred Herder to Vico, the inductive history that links facts together to the ideal history which converts them into symbols, Michelet declared Vico superior to Herder. Each attached himself to the author whom he had discov-

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<sup>43</sup> Vol. III., pp. 116-119.

<sup>44</sup> Vol. II., p. 512.

<sup>45</sup> Vol. III., p. 119.

<sup>46</sup> Quinet Introd., pp. 27, 8. Vol. II., p. 413. The formula of Herder is less rigid than the transcription of Quinet. But Michelet understood it as did Quinet.

<sup>47</sup> Vol. III., pp. 128 and 150.



ered. Herder was wrong, in Michelet's view, in regarding the individual alone as the work and the end of Providence. Society was for him an artificial body, and the small societies seemed to him more favorable to the liberty of the individual than the centralized unity of great empires.<sup>48</sup> Michelet, who as we have seen, had social tendencies, drew towards Vico, and found in him doctrines that offset Herder's. "Humanity," he wrote, appeared to him not (as to Herder) under the aspect of a plant which, by an organic development, flourishes in the earth under the glowing brightness of the heavens, but as an harmonious system of the civil world. In order to observe man Herder takes his stand in nature; Vico in man himself, in man humanizing himself by society.<sup>49</sup> It is very true that, in spite of certain passages where the free effort of the soul seems to be asserted and safeguarded,<sup>50</sup> Herder, in the greater part of his work, makes the facts of history and human development dependent upon conditions that preclude freedom of choice, upon fatalities without and within. But here Quinet corrected Herder. To the law of necessity he opposed the law of liberty, without which the movement of societies remains inexplicable and miraculous. "At different periods the human race has declared that it wishes to modify or completely change the established institutions which are offered to it, and to make itself a new destiny according to its taste, and at its own risk and peril. . . . History is the spectacle of liberty, the protest of the human race against the world that enchains it, the triumph of the infinite over the finite, the reign of the soul."<sup>51</sup> Humanity sees and is under the influence of visible nature; but "there is another object that it contemplates incessantly, which reacts upon it

<sup>48</sup> Vol. II., pp. 137 and 139.

<sup>49</sup> *Introd. to Universal History*, p. 151.

<sup>50</sup> Herder, Vol. I., p. 281 sq. Man should become "under the direction of his spirit and by his own efforts a creature more noble and more free—and that is what will happen . . . the captive genius of nascent humanity will one day appear." Cf. Vol. III., bk. 15, ch. 1.

<sup>51</sup> *Introd.* pp. 27-34. In reality he disengaged an idea of Herder's rather than contradicted him. Herder said: "Humanity has been everywhere what it was made, what it has been able or wished to become . . . in this point of view the history of all peoples becomes a school of perfection where the crown of humanity is offered to the efforts of each new empire."

more continuously, more immediately—that object is itself.” History is the product of that contemplation. “It is the labor of the *I* which sees light at last, and little by little disengages itself from what is strange to it, and aspires to evince itself in its freest form.”<sup>52</sup>

There, more clearly than anywhere in Vico,<sup>53</sup> is this idea of the influence of *the self upon the self*, this principle of a humanity that creates itself, for which Michelet declared himself indebted to Vico. Would he not have been more apt to take it from Quinet than from Vico? The collaboration of the two minds is so strict at this date that one can not determine exactly the part of Michelet in the development of Quinet. “If I tell you nothing of Michelet,” wrote Quinet to his mother, “it is because our friendship has become so close that I think of him but as a kind of second self.”<sup>54</sup> They acted and reacted upon one another incessantly, and it is more than possible that Michelet, supported by Vico, aided Quinet in disengaging the formulas by which he corrected Herder, and that in taking them for his own use he was in reality but taking back his own thoughts.

A letter from Quinet to Michelet, written from Heidelberg, in March, 1828,<sup>55</sup> shows us how intense their activity was, and how far they were from being merely pupils of the Germans. In that letter Quinet announces that he sends his friend some German books, passes in review the great thinkers and students of Germany, and finds them all shut up in ontology, or applied to the study of nature, or quartered in the corners of history, or occupied with a technique that knows no breadth of view. “No one of them truly rises to general theories. . . . What are we asking, my friend? Who will give us this book which is the business of our life, and for which we have sought so long? Where is he who feels himself at once poet and philosopher, active and contemplative, priest, artist, statesman, religious and a reasoner, young

<sup>52</sup> “Study of Herder,” Vol. III., p. 500.

<sup>53</sup> Cf. “Science Nouvelle,” ch. 3 and 4. “The social world is certainly the work of man,” etc.

<sup>54</sup> “Letters to His Mother,” Vol. II., p. 134.

<sup>55</sup> “Fifty Years of Friendship,” p. 19.



and old, since humanity is all that? It is the business of an individual? Not unless he can enclose the universe in himself. Meanwhile our duty is to aspire to it." In these words shines forth the truly romantic ambition of these two young men. It is an history that will reflect the universe, that they seek, and to write it they are ready to embrace the universe. This history is indeed contemporary with the drama which, according to Hugo, its creator, was to be "seen all at once in all its aspects."

But how accomplish this immense synthesis? On what plan and by what means?

Cousin, in 1828, traces the programme for them with a magisterial perspicuity. In his course which he entitled "Introduction to the History of Philosophy," he devoted the six central lectures to the philosophy of history.<sup>56</sup> There he developed the theory, clothing it with logical precision, and oratorical amplitude, of the symbolism which was in the germ in the fragment of 1819. Every fact is an idea or a relation of ideas. Every people is an idea, and the clash of peoples is the clash of ideas. The grandeur and decadence of a people are the grandeur and decadence of an idea. But there are scarcely more than three ideas—the infinite, the finite, and the relation of the finite to the infinite. There are but three epochs: the epoch of the infinite, Asia; the epoch of the finite, Greece; the epoch of the union of the finite and the infinite, Christian Europe. Ideas manifest themselves according to three modes, which are: *the places, the people, the great men*. The plains of Asia, that is the infinite. The land of Greece, limited and bounded by natural divisions, that is the finite. The great men translate into definite acts the obscure striving of the mass; they disengage the idea from their race. Progress is continuous. The good necessarily carries the day; the victor everywhere is the best. All that doctrine is but German thought filtered, systematized, reduced to the good order of French rhetoric. But was it not their own thought that Cousin was offering to these young men? When he occupied his chair again in 1828, and established those excellent lectures, what did he owe to their conver-

<sup>56</sup> Leçons VI.-XI.

sation? Did he give to it more than his own order and form? Who had thought the most, who knew more about these questions of method or of historical philosophy, the master or the disciples? I can but ask the question.

Of the three ways of manifesting the idea through history, *great men, the people, the places*, Vico had given Michelet the means of treating the first: great men are the symbols of collective life and of the centuries. In Vico also was found the means of proceeding by the second way. The life of a people is hidden in its language and in its law. But Vico contented himself with the idea of a science to be formed; the Germans formed it: Creuzer with his "Symbolik," but above all Jacob Grimm<sup>57</sup> with his "Deutsche Rechts Wissenschaft der Altertums." Goerres, "the greatest genius in all Germany,"<sup>58</sup> with his "Alt Deutsche Volks- und Meister Lieder," showed Michelet how the meaning of religions, institutions, and popular customs might be extracted; and how the deeds of great men could be interpreted as the collective labor of the race. Otfried Müller applied the most penetrating analysis "to the study of the localities in which dwelt the different peoples of primitive Greece."<sup>59</sup> All that was in harmony with the nature and education of Michelet; it brought him back to literary monuments and to poetic impressions, and made him consider the masses in harmony with his democratic tendency. He settled down, then, in this way. In 1828 he plunged into the Scotch songs, the Sagas, the Niebelungen, etc. He set himself to consider the France of his time with the spirit of Grimm and of Goerres, and to form in himself that sociological sense which he has defined in "The People" (1846)—"Such a detail, for example, in the habits of our mountaineers of the Pyrenees, of Auvergne, you find coarse; as for me, I regard it as *barbarous*; as such I understand it; I classify it; I know the place and the

<sup>57</sup> "A new science, indicated by Vico, has become possible (thanks to Grimm): the symbolism of the law." ("Origins of the Law," p. iv.). Cited by [name illegible in MS.] and Extracts from the "French Historians of the 19th Century," p. xxxv. of the Introd.

<sup>58</sup> "Préf. de Rome." During his travels in Germany he visited him, and also Creuzer, in 1828.

<sup>59</sup> "50 Ano d'Amitié," p. 19.



value of it in the general life." And in this way many things in popular customs and manners which to-day seem senseless were seen by him as the débris of "the wisdom of a forgotten world."<sup>60</sup>

With regard to *place*; Vico, who dealt wholly in the abstract, did not help Michelet; he owed everything in this respect to Germany, although there were many hints upon this head to be found in France. Montesquieu, in Books XIV, XVII, and XVIII of the "*Esprit des Lois*," in expressing his theories of the influence of climate and country, had commenced the application of geography to history. Turgot had drawn curious "Political Maps of the World" for certain great periods, and had admirably defined some geographical conditions in their relation to the facts of history.<sup>61</sup> Geography was for him "the thing that marked the divisions of history"; or, to express it another way, history had in his eyes two dimensions—chronology and geography,<sup>62</sup> and the localization was as indispensable in an historical study as the chronology. Unfortunately, these fine ideas of our eighteenth century remained a dead letter to our historians. Neither Guizot nor Sismondi were at all preoccupied with geography, and Augustin Thierry gave his subject a setting in place only to lend it color, not to explain it. The geographers, for their part, remained dry specialists; or, if they dreamed of an historical application of their knowledge, they fell into a vague way of developing their ideas, that was without scientific precision or real instruction.<sup>63</sup>

In Germany, on the contrary, Michelet found both precepts and examples. Herder bound up history with geography. "The place where men live," wrote Quinet, in summarizing Herder's ideas, "determines in advance, by the circumstances with which it surrounds them, the habits which pass into laws. Before human activity had appeared in the world, chains of mountains, the form of the land, the windings of rivers and streams, had already marked in ineffaceable traits the future physiognomy of history."<sup>64</sup>

<sup>60</sup> P. 144, ed. in '80. Flammarion.

<sup>61</sup> Works, ed. Dupont de Nemours, Vol. II., pp. 611-671.

<sup>62</sup> *Ibid.*, p. 613.

<sup>63</sup> Guizot [?] *leçon d'ouverture* of the 30 Dec., 1825: discourse on geography, pp. 3 and 4.

<sup>64</sup> *Introd.*, p. 23.

The place determines the race and the genius, that genius which is "inexplicable as well as unalterable."<sup>65</sup>

Herder imposed on German science the consideration of geographical influences. Creuzer believed that it was impossible to explain myths without regard to the configuration of the countries where they had flourished—Iran, Persia, Egypt, etc. I do not know whether Michelet read the "Erd Kunde"<sup>66</sup> of Karl Ritter, in which geographical considerations are filled out with illuminating explanations of the relations of *place* to chronology and history. But he read in January, 1828, the ideas of Heeren on the politics and commerce of the peoples of antiquity (1793-1815, fourth edition 1824), which gave to nations the form of life, in such a way that the men of the past appeared, not like machines, but like moral beings who had, each one of them, their own ways of living and acting.<sup>67</sup> He found in geography the explanation of customs. Thus after having written of Greece, its towns and country districts, he arrived at conclusions, drawn from the nature of the land, as to the political divisions of the country, the variety of its civilization, and its commercial destiny.

Michelet did not read, as a critic, to know what others thought about history, but, as a man of action, to choose the means of writing for himself. There is in his history, to use his own expression, a whole *work by himself on himself*, in which he created the historian that he wished to be. Of this work, the "Journal of My Ideas" has preserved for us some traces, and the first works that he published make us see the results.

Vast philosophical subjects, in which the historical element was but a skeleton, or served but as an excuse for the historian who wished to treat them, passed with him for historical subjects properly so called—a history of the Reformation (1826), a biography of Luther (1828), etc. The Germans, with Sismondi and Guizot, made him feel the value of collections of documents: he projected the "Correspondence of the Popes" (1825), "Monuments of Christianity Translated and Published" (1826), about

<sup>65</sup> Herder, Vol. II., p. 341.

<sup>66</sup> 1817-1822. Translated in 1836, by Ed. Baret and Ed. Desor (3 vols. 80).

<sup>67</sup> Vol. I., p. xxi. (1830).



one hundred volumes," he writes, "with the fine intrepidity of youth";<sup>68</sup> "Encyclopedia of Popular Songs," of which his mind, entirely occupied by Goerras, conceived the idea one evening as he heard student songs rising from the street.<sup>69</sup>

Preoccupation with thoughts about a method haunted him. He proposed to himself to separate the essential from the accidental by the comparative method.<sup>70</sup> He wished to discover laws, and then to draw generalizations from them, in order to extend the power of human foresight. As I have already remarked, in descending from philosophy to history, he paused a moment in sociology. In February, 1826, he conceived the harmony of universal history. "If God is infinite (infinitely foreseeing, wise, etc.), the history of the world is system."<sup>71</sup> The unity of the history of the human race, "light come out of Asia," the flux and reflux of nations, "now civilization seeking the barbarians, and now the barbarians seeking civilization"—all this is purely in the spirit of Herder.

At the same time he dwelt upon the subject of the Reformation, and we see how he represented the symbolic power of facts. His impartiality lay in presenting the Catholics as representatives of the conservative principle, the Protestants of the innovating principle;—the unity and the mind of the East; the division and the mind of the West, authority and free inquiry, community, individuality; that which is regular, and the accidental, which is the result of the operation of law.<sup>72</sup> Thus two ideas clash under the form of the religious war of the sixteenth century.

But in the same subject the necessity of geographical considerations was apparent to him—"the geography and the statistics of an epoch alone can make it understood. They have been neglected by all historians."<sup>73</sup> Herder and Heeren here have a disciple. But he adds, a month later, a conception which he elaborated with Quinet: "Geography is the materialism of his-

<sup>68</sup> "Mon Journal," p. 321.

<sup>69</sup> *Ibid.*, p. 324.

<sup>70</sup> *Ibid.*, p. 299—cf. above, note 1 on p. 11.

<sup>71</sup> "Mon Journal," p. 328.

<sup>72</sup> *Ibid.*, p. 318.

<sup>73</sup> *Ibid.*, p. 319.

tory,"<sup>74</sup> and the spiritual element [*spiritualisme*] in history is the moral being who struggles to free himself from geographical conditions.<sup>75</sup>

The spontaneity of Michelet affirms itself in another way. To geography (topography and statistics) he added the landscape, costume—all the concrete aspects of life. He used, beside documents, portraits, paintings, medals, arms, banners, architectural monuments, and whatever else could bring history before the eyes.<sup>76</sup> Here the artist dominated the philosopher; and, to the great gain of history, Michelet turned from the universal and the race to consider the specific differentiations of an epoch.

Meanwhile, up to 1827, Michelet, professor at Ste. Barbe, had taught history to children only. The "Abstract of Modern History" (1827) is the expression of that pedagogic experience. It misses no opportunity of affirming his symbolism, and of making it plain that the history of religion, of institutions, of commerce, of letters, and of the arts, is more important than that of political events. Few facts he said, but facts well chosen, which may be *images* for the child, *symbols* for the man. History is a chain of ideas clothed for the imagination with concrete forms. The dramatic unity of the three modern centuries (sixteenth, seventeenth, and eighteenth) which Michelet wished most particularly to make clear, expresses in his thought the logical unity of development of European civilization since the Renaissance.<sup>77</sup> In the writing of the "Abstract" it was incumbent upon him to be an alert and expressive narrator: his theory cropped out everywhere without ever intruding itself.

But in the beginning of 1827 he became Professor of the Preparatory School (the Normal School); it was there, before an audience capable of understanding what he said, that all the meditations of which his journal had kept the clue were resolved into precise constructions; there, finally, he grew to his strength, and

<sup>74</sup> *Ibid.*, p. 320.

<sup>75</sup> This formula of the *spiritualism* of history is in the course of 1828-1829, delivered at the Normal School.—Cf. G. Monod, the article already cited.

<sup>76</sup> "Mon Journal," p. 319.

<sup>77</sup> Preface of the Abstract.



began to enlarge his field of activity. Always occupied with systematizing history, with following across the middle-ages even to the end of the sixteenth century the two-fold action of the principles of unity and dissolution; giving always a geographical base to history; observing his pupils and amusing himself by reading in their traits and minds the characteristics of different French provinces, the fateful determinations of race and place; divining in languages, literatures, and beliefs the soul of nameless masses, and of the vanished past;—in a word, adhering to Cousin's formula—*places, races, and great individualities*—he little by little gave his conception of history a firmer form, and developed it in all its details and its consequences. He was conscious of its weak or still unsettled points;—the question of the permanence of races, and its relation to the influence of locality, and the exercise of free will. In 1829<sup>78</sup> he plunged into his work. He sketched the plan of universal history, conceived as the progressive triumph, which with Christianity became decisive of liberty over fatalism. He found on the whole that accent of historic sympathy on which were based the reasoning optimism of Herder, Cousin's law of the triumph of the best, his own temperament, his mystic spirituality, his political neutrality, his social and democratic spirit, his love for the dead and his reverence for them, as ancestors first, and then as men dead indeed and powerless to return. But in speaking, without hatred or superstition, of king and priest, he reveals to us some new traits.

The Middle Age is one of the monuments of the great duel of mind with nature. Nature was for him the same thing as geography, and its historic expression, feudalism. Royalty and the Church represented mind, liberty. "The obscure and unrecognized right of the people had for long centuries a mystic envelope. The two spiritual powers, the king and the priest, represented the national idea, all that was not dependent upon localities, all that was abstract and central. The right of the people grew within that envelope."<sup>79</sup>

Thus for Michelet *the abstract* and *the central* are opposed to

<sup>78</sup> "My Journal," p. 328.

<sup>79</sup> Cf. Monod, the article cited.

the influences of locality, and to what is in the hands of fate. Unexpected equivalents are established: on one side, *nature, matter, division, geography, fatality*; on the other, *humanity, mind, reason* (abstract), *unity, civilization, liberty*.<sup>80</sup> When Michelet's metaphysics realize themselves in political conceptions, we perceive that he is indeed of the Jacobin tradition. The duel of liberty and fatality, expressed in political language is centralization triumphant over natural divisions and the separatist tendencies of various districts. The liberty to which he is attached is not the liberty of the individual man, it is the collective liberty of a group realizing in its organization a universal idea; at bottom it is the equality which reduces individual liberties to the advantage of the common liberty.

The Revolution of July, 1830, marked a new halting-place for Michelet. It destroyed in him all that was but concession and complaisance—more or less unconscious towards the defeated order; it set him free in his pure and full personality! His philosophy and his method were enriched and modified. The "Introduction to Universal History," under its modest title, is an admirable discourse, destined to replace by more modern and rational views the historical theology of Bossuet. The Michelet of 1831 delivers himself at large and with ardor. The fundamental theory of his thought develops itself in rich variations.

There was a war when the world began, and this war will end with the world and not before; the war of man against nature, of spirit against matter, of liberty against fatality. History is but the recital of this interminable struggle. . . . Let the battle go on forever! It constitutes the dignity of man and the real harmony of the world." Meanwhile history is not only "the eternal protest," it is "the progressive triumph of liberty," always unachieved, but always growing. "What should encourage us in this struggle without end is that on the whole the event is favorable to us. Of the two adversaries, the one does not change, the other

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<sup>80</sup> That is why, in the "Roman History" (1831), he will prefer Cæsar to Cato, the man of humanity to the man of the republic. He loves Cæsar as the founder of the empire which was going to open to the world three gates of Rome. See also "Four [?] Pictures of France," especially at the end; and Introd. to the "Universal History."



changes and becomes mightier (Herder's idea). . . . The Alps have not grown greater, but we have made the Simplon pass. Winds and waves are not less capricious, but the steamship cuts a path through the waters, careless of the caprices of winds and seas."<sup>81</sup>

Michelet, with a sweeping glance, regarded the movement of humanity through the cycles of the centuries and the immensity of space. With Herder and Quinet he saw civilization spreading from the ends of India, from the Orient to the Occident, through Persia, Greece, and Rome. "From India to France the fatalistic power of nature and the influence of race and climate diminish, and become less tyrannic. . . . Persia is the beginning of liberty in fatality. . . . With the Jews nature is dethroned . . . duality yields to unity. For this little world of unity and mind a point of space amidst mountains and deserts suffices."<sup>82</sup> Unity is precarious and incomplete. It is in Europe that unity will realize itself. The whole genius of Europe, as if in a geographical chart with expressive symbols of soil and climate, is presented in contrast to the geography and genius of Asia.<sup>83</sup> In Greece the unity of the city stands opposed to the dispersion of natural, barbarous, Asiatic life. But in Greece there are two cities: Sparta and Athens. The Roman city is one—one, but not universal; in spite of the pretensions and the effort of Rome, the barbarians, the Christians, the slaves are outside of the city. Christianity realizes what Rome has not been able to realize. The other Oriental religions plunge man into matter;<sup>84</sup> they take for symbols the obscene signs for life and generation. Christianity embraces mind, embraces death. . . . I have kissed with all my heart the wooden cross which rises in the midst of the Colosseum which it conquered."<sup>85</sup>

The modern world is born of a union of Christianity and barbarism, of the meeting of the Orient and the Occident. There

<sup>81</sup> Pp. 5 and 6.

<sup>82</sup> Pp. 7-12.

<sup>83</sup> Pp. 12-14.

<sup>84</sup> Cf. "Rome," p. 123.

<sup>85</sup> *Introd.*, pp. 14-22.

were unsuccessful attempts at such a union on the part of the Goths, of the Franks, of Charlemagne; finally, there was the feudal régime, that combined all.

These two helpmates of God, the Pope and the Emperor, balance and harmonize the world. Marvelous system! . . . Material force, heredity in the feudal organization; in the Church, authority, intellect, the will of God. Force everywhere, intellect at the centre; intellect ruling, dominating over force. . . . This world of force subjugated by spirit expresses itself in the crusades. . . . Thus in a thousand years the long miracle of the Middle Ages is accomplished.<sup>86</sup>

But in spite of his admiration for the political work of the Church, in spite of his mystical tenderness for Christian symbolism, for the Christian altar, "unique refuge for the religious soul," which the world has deserted and has not replaced,<sup>87</sup> Michelet, his mind illuminated by the brightness of July, discovered what he did not know two years before, that Christianity was not the *final triumph* of liberty. The Church, in calling force to its aid, subordinated mind to it. The man of law, the professional man, the merchant, the peasant, excluded and oppressed, rose against the false unity of the feudal world, against the tyranny of priest and lord. And history again took its course. Where the Church failed, the world of the Revolution, of science, and of labor succeeded. "Liberty has conquered, justice has conquered. . . . Man has broken little by little with the natural world of Asia, and by industry and research has made himself a world which restores liberty once more."<sup>88</sup>

"In this European drama what is the part of each nation? Here geography still illuminates history. Each country determines the physiognomy of its people. The Spaniards and the Slavs are rapidly set aside.<sup>89</sup> Germany is the India of Europe, its genius pantheistic and metaphysical; the genius of Italy, passionate, severe, utilitarian, realizes but 'the city.' In Germany and

<sup>86</sup> Pp. 24-25.

<sup>87</sup> P. 22. But, p. 70, he reproaches Christianity of having failed in its principle by recommending individual salvation and safety—flight to the desert.

<sup>88</sup> P. 26.

<sup>89</sup> P. 28.



in Italy, fate, division,<sup>90</sup> reign—in the case of each of these nations moral liberty is hindered and oppressed by local influences of race and climate. . . . In such countries there will be juxtaposition of diverse races, never close fusion. The mixing of races, the mingling of opposed civilization, is nevertheless the most powerful auxiliary of liberty. . . . This mingling, which is imperfect in Italy and Germany, and unequal in Spain and England, is perfect and equal in France. What quarter of the globe is the least natural, the least simple, the most artificial, that is to say, the least the slave of fate, the most human, the freest in the world? It is Europe; and the most European of the countries of Europe is my country—France.”<sup>91</sup>

He proceeded to sketch the geographical and moral picture of his country: a centralized country, whose centre is powerfully assimilative, with a genius supple and active, a land of eloquence, a land of prose, a land of democracy.<sup>92</sup>

The year of 1830 opened for Michelet the old wound of Waterloo, and he brought to bear against England all the vivacity of the Picardian and the passion of the man of Ardennes, which were blended in his inherited temperament. He loved France for being the antithesis of England—of that England which he admired and hated, whose “inflexible pride” was the obstacle to the fusion of races and to the leveling of social inequalities. “The heroic people of Europe—they are England; the free people—they are France. In England, where the Germanic and feudal element is dominant, the old barbarous heroism, aristocracy, liberty by privilege triumph. Liberty without equality, liberty unjust and impious, is nothing else than an anti-social element in the midst of society. France desires liberty and equality, which truly constitutes the social genius.”<sup>93</sup> Thus in the light of July the identification of the spiritual element in society and of metaphysical liberty with political equality is accomplished.

The social genius of the French people had that power and

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<sup>90</sup> Pp. 47-48.

<sup>91</sup> P. 48.

<sup>92</sup> Pp. 49-56.

<sup>93</sup> P. 60.

clarity that made France "the organ of new revelation, the interpreter between God and man." France, in place of Rome, in place of the Church, "is henceforth to be the pilot of the ship of humanity,"<sup>94</sup> the pilot who is to direct the "course of the immense drama" in which will be played the destiny of the human race.<sup>95</sup> "Every social or intellectual revolution remains barren for Europe until France has interpreted, translated, and popularized it. . . . France reveals the thoughts which the nations, each in its solitude, strike out."<sup>96</sup> It was the achievement of Revolution, the achievement above all of 1830, of which Michelet gave the formula; France was again placed at the head of nations, with the function of guiding them towards liberty.

With that work Michelet's formative period ended. The genius of the historian from that time on was organized, fixed in its essential traits, armed with the means of action. His philosophy should be explained with his method; the two are inseparable. It is the former that determines the latter, and is itself determined by the moral complexion of the historian. Indeed, at this period, it is easy to see that Michelet had simply succeeded in making a doctrine from his own temperament. All his literary education, his lectures from the "Imitation" to Jean-Jacques, his teaching in school under the Empire, and his teaching at the Royal College, his Scotch philosophies, and Victor Cousin, had constantly inculcated in him the distinction between soul and body. Above all, his own life had impressed him with a poignant sense of their opposition: was he not brought up in a continuous and continuously grievous reaction against all the fatalities of circumstances and of physical nature. This duel of mind and nature which he read in the whole history of humanity was his generalization upon the experience of his own childhood. From the time he began to think he had felt at once the dependence and the liberty of man in nature.

One holiday evening in the month of June, he notes in his journal as he returns from Saint Cloud: "Never before have I

<sup>94</sup> *Avis.*

<sup>95</sup> P. 74.

<sup>96</sup> P. 72.



felt more keenly than to-day the strength of the marriage tie between man and nature—a tie we are often unconscious of, but none the less is it very real and very strong. The paths, the woods, on this fair June day, overflowed with people; joy was on every face."<sup>97</sup>

Some weeks afterward, on the heights behind Père La Chaise, the amorous couples who kept passing before his eyes brought to his mind the eternal struggle between man and nature. And he abandoned himself to a reverie that condensed itself into an admirable page.

Nature tends obstinately, he thinks, to bring man back towards primitive animality, to unmake the civilized man. It is perhaps still her dream to have sons like her, men *all nature*. Humanity, in its earliest age, could be but that, and legitimately. It had then to take possession of the world which had just been born. It engaged in sternest combat with the primitive, shaggy creatures, well armed with teeth and claws, that looked with contempt at this last-born of creation, without claws, unprotected by hair, *all* naked and unarmed.<sup>98</sup> To conquer these creatures man must be like them. "He also must belong to this lower world, or rather he must take on the two natures—that is to say, he must needs become at once man and beast, possessed of instinctive craft as well as bloodthirsty fury. The victory, which rested decisively, at so many points of the globe, with the weaker, shows none the less the original superiority of the conquered. In the man-beast, at first controlled entirely by physical fatalities, slept already as in the chrysalis the true man, who walks upright and with his face to the heavens."<sup>99</sup> And thus true man, little by little, set himself free. "Today mind is decidedly the victor. To the heavy dreams of a troubled blood, to the energy of the brute, has succeeded the nervous life of delicate, intelligent sensibility; in short, the higher life."<sup>100</sup> But the beast is not dead: he must be watched.

<sup>97</sup> "Mon Journal," p. 213.

<sup>98</sup> The last born of creation is Biblical and Christian; "*nu et desarmé vient de Lucrèce et de Plinie.*"

<sup>99</sup> Ovid., *Metam.*, the beginning of it.

<sup>100</sup> "Mon Journal," pp. 228-230. "From the beginning of life our soul seems to have

Here, then, in 1821, in these thoughts that came to Michelet as he traveled alone, on the heights of Ménilmontant, is the theory of history, the duel of the two principles, the *homo duplex*. But in 1821 Michelet did not dream of making a theory of history out of it—he but drew from it a moral precept of the chaste and sober life, a precept of distrust of, and watchfulness over, self. For five or six years this meditation bore no intellectual fruit. It slept at the bottom of his mind, until the meeting with Vico, Quinet, and Herder; then it became active. It assimilated and transformed materials taken from without, and transformed itself: it lost its moral and Christian character and took on a scientific value. The nature which must be subdued is not only within man, it is within and without him. Humanity has no longer to guard itself against temptations, but to surmount fatalities. The thought of Michelet was enlarged and enriched, but at bottom the grandiose theory of 1831 is but a return to the reflections of the student of 1821. He reacted against what he read, and this served to disengage his true nature.

After 1831, certain ideas of Michelet were modified. He grew hot in anger against kings, nobles, and priests. His love of the people became a devotion. He even reconciled himself with nature, thanks to the Renaissance, to the mountains, and the sea. These changes altered his philosophy, without disturbing his method.

He put off, also, the optimistic fatalism that imposed a necessary progress upon liberty. He had been content in the thought that Rome had conquered the Greeks, that Rome had been destroyed by the barbarians;<sup>101</sup> that the Celtic race should pass

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but one mission, that of acquiring *une figure interne*, the form of humanity . . . In the progress towards truth and liberty, he (man) is retarded by chains that go back to the origin of the human species. . . . man belongs in large measure to the animal world. He has brought into the world but a capacity for humanity." (Herder, Vol. I., pp. 284 and 295). It has been asked how Michelet failed to see this affinity of the thought of Herder with his own, and why he saw in him only the physiological and geographical determinism. It is this error which makes me sure as to the place in "Mon Journal" of the extract from Michelet [referred to above], and prevents me from assigning a date to it later than that of the lecture, as one would otherwise be tempted to do.

<sup>101</sup> Introd. to "Universal History."



through an agony; that Italy should belong to Austria rather than to France or to itself: he had formed his conception of *division* as the necessary manifestation of an eternal idea.<sup>102</sup> A day came when he perceived that *the best* did not always rule in the world, and that liberty had its defeats. One day, in 1846, he commenced his course in the *Collège de France* with these words—"Gentlemen, the right is eternal."<sup>103</sup> Conquered Poland had given him new light. Did his method profit by this acquisition? If he was dispensed from finding *the better* in each successive form of civilization, he was also free to yield to his antipathies; and the true idea took a useful counter weight from his spirit.

In 1829 he undertook to clear up his notion of *race*, which had long embarrassed him. He proposed to consult the German naturalists. He wrote to Ampère, who loaned him books; and wished to study the historic problem of races with precision, in detail, not by nations, but by provinces.<sup>104</sup> Possessed with the theory of Herder, that the world had moulded the race, he accepted the theory of Thierry, which explained the history of England and the history of France by the conflict, in each country, of two races opposed to each other, and superimposed one upon another. It was from this point of view that he wrote the "Introduction to Universal History." There he sees the genius of India persist in Germany;<sup>105</sup> the races are not blended in the England of 1830; "Dr. Edwards," says he in a note, "has put into all his work the fertile principle of the persistence of races."<sup>106</sup> But how is it that France is one? And if the genius of race is unchangeable, it remains true that Occidental peoples have received their character in a distant Orient, which was their cradle: is it true that the geography of Europe has not put its mark upon them? Michelet could not maintain this idea. Between 1831 and 1833, he abandoned the ideas of Augustin Thierry and of Edwards, and he passed to the theory of Price, which ad-

<sup>102</sup> "On the Roads of Europe," pp. 450, 479, 480.

<sup>103</sup> Noël, "Michelet and His Children," p. 189.

<sup>104</sup> *Ibid.*, p. 327.

<sup>105</sup> Cf. "Mon Journal," p. 324.

<sup>106</sup> P. 139.

mitted the mutability of races. But Price was a savant who determined interior variations by external conditions. Michelet felt the need of meeting the views of both Vico and Herder, and in admitting that the race, fashioned as it was by anterior habits, could be influenced by new conditions of existence, he took the part of spontaneous reaction, of free will, of liberty. Evolution was put in the service of spirituality. By this last precision the unity and coherence of the system were assured.

Michelet changed nothing essential in his method, but his nomination to the post of director of Archives in 1831 transformed the application of it, and changed the sociological orator to a veritable historian. Up to that time Michelet had considered, above all, the documents in which his poetic imagination and his taste for philosophic generalization found the most satisfaction: documents literary or judicial, songs and popular customs, etc. Now his position brought him into a great storehouse of strictly historical documents, abstracts official, administrative, and judicial, accounts public and private, credentials, and charters of all kinds. He understood that in these records the life of the past was enclosed, and that from their contents this past in its reality might be more certainly known than from the chronicles upon which Augustin Thierry had based his researches. Then he passed from the philosophical criticism which he had practiced up to that time to a new exercise, to the historical criticism that inquires concerning the authenticity, integrity, and credibility of documents. Then he acquired the capacity which was to make him editor of the "*Procès des Templiers*." We may measure the gain that resulted from work of this kind by comparing the somewhat uncertain documentation of the "*Roman History*" with the documentary precision of the first volumes of the "*History of France*." Here, indeed, metaphysical symbolism and poetic exaltation overlay an erudition that resulted from researches which were, at that date, absolutely original, and which, to-day, give the work its solidity. At the same time it is not the change of direction in Michelet's sympathies, and the progress of his partialities, that makes the unequal value of the different parts of the "*History of France*": it is the unequal employment of the docu-



ments he found in the Archives. One can believe that, but for the nomination of 1831, the historical education of Michelet would never have been completed.

Perhaps his method was less dangerous than it seemed to be. Optimism gave him partiality. The antithesis of mind and nature is one of those metaphysical formulas that imply no bias in one direction or another. Although liberty be recognized, it is true that civilization, centralization, the social movement meet with obstacles in geographical conditions and local customs. The fact that this conception is clothed in metaphysical language makes no difference. This symbolism is at bottom but a manner of expression. An idea less vague than these of Michelet would be far more dangerous to the historian—a political doctrine, for example, like that of Guizot or of Thierry, which makes the triumph of the bourgeoisie the goal of the history of France.

Yet Michelet's method was dangerous in this, that metaphysics furnished *a priori* the plan of history, and guaranteed the writer the necessary accord between the real and the ideal; it authorized logic or vision to fill the gaps which erudition could not fill. In giving the means of supplying information it brought a temptation to go too far. It did not demand the choice of exact facts, nor an exact use of them. It was, indeed, an invitation to regard facts as but signs and images, which ought to be true when they well represented the idea, and consequently to place, in this single correspondence of fact with idea, the criterion of historical truth.<sup>107</sup> Happily, then, when Michelet was installed as director of the Archives authentic facts, the original sources of facts, crowded forward to place themselves under his hand. He had at his disposition historic matter of the first order, new and unadulterated, and upon this he might draw for symbols at will. Thus this biographical incident gave his studies a direction which neither his romantic temperament nor his metaphysical method imposed upon him.

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<sup>107</sup> Hence comes the choice of insignificant facts, of facts turned aside from their special value; the rash acceptance of facts ill established or ill observed, *e.g.*, the unequal towers of the Cathedral of Angers expressing the incomplete destiny of Anjou; an evening's walk in the streets of Dublin, sufficing to open the Irish popular soul to Michelet, etc., etc.

## MODERN SIEGE OPERATIONS AS EXEMPLIFIED AT PORT ARTHUR

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**P**ORT ARTHUR, lying on the extremity of the Liaotung peninsula, had been ceded to Japan in 1895, at the close of the war between the gigantic China and little Japan. The Russian, French and German Ambassadors, backed by the allied fleets of the three great Powers, demanded, on April 27, 1895, the retrocession to China, "in order to maintain its integrity." Yielding to "force majeure," the retrocession was reluctantly made and Japan received, in lieu, an increased indemnity. This integrity was then maintained by Russia taking possession of Port Arthur, under lease of twenty-five years, whilst Germany possessed herself, later on, of Kiaochou, with its excellent harbor and valuable "hinterlands." Russia further indicated its intentions of only a "temporary occupancy" by expending millions for the benefit of China, in creating the Port of Dalny and fortifying Port Arthur, so that it was considered to be absolutely impregnable.

Port Arthur had been fortified by the Chinese, under the direction of Italian engineers, afterwards supplemented by German engineers; and although it was provided with the best of German and English artillery, it fell to the land attacks of the Japanese within two days. They then captured by attack Etzeshau—unassailable in 1904. In these assaults it was the "man behind the gun"—and walls—and the character of the men making the attack that determined the issue.

From the time of leasing and taking possession of Port Arthur, the Russians worked incessantly in extending and strengthening its defenses so that it could only be captured by the slow processes of a close investment and a regular siege. The natural strength of the position was such that, when supplemented by the fortifications, it was designated as "equal to six Sevastopols." A close investment, however, would bring the garrison to the necessity of surrender as soon as its supply of food and ammunition were exhausted.



The siege of Port Arthur, from the time it was attacked on the seaside until its surrender, lasted eleven months. This period was a little less than the 340 days' siege of Sevastopol; but the holding of Port Arthur for so long a time was more of an achievement. Sevastopol had never been cut off from free communication with Russia and appears never to have been in stress for food or ammunition. On the other hand, Port Arthur was practically isolated and received only scanty supplies from Chinese Junks and a few Blockade Runners. On the land side, the railroad to Mukden was cut early in May, and only after the battle of Nanshan Hill, May 26th, could the investment be considered complete. Thus, Port Arthur was invested for a little more than seven months.

The Blockade-Runners succeeded in entering the harbor, frequently eluding the blockading fleet by chicanery. The Japanese wished to avoid any possible criticism of interference with neutral vessels. But the entry of a blockade-running steamer enabled the besieged to hold out from three to four weeks longer, and cost the Japanese many thousands of lives.

It is beyond the scope of this paper to give an historical account of the details of all the operations of this siege of eleven months. The following brief summary of the principal events, with the diagram showing the principal positions of the Japanese lines from the beginning of the investment to the final position preceding the surrender, must suffice for our present purposes.

### NAVAL OPERATIONS

The war was opened February 8th, 1904, by the attack of the Japanese torpedo boat flotillas on the Russian Fleet. The Russians appeared to have been surprised, and in this unexpected attack several of their vessels were lost or seriously injured. Six days later this attack was repeated with great damage to the Russians. In these two attacks the Japanese sunk two ships and disabled seven.

On February 24th an attempt was made, in a snowstorm, to blockade the narrow entrance to Port Arthur by sinking five ships therein, like Hobson's attempt at Santiago and with similar futile

results. The enterprise was executed with skill and intrepidity. The ships were sunk, but they did not blockade the entrance.

From this date to March 26th the Fleet bombarded Port Arthur at various times without making any serious impression.

On March 26th a second attempt was made to blockade the entrance of the harbor by sinking ships in the channel. These ships rendered the navigation more difficult for the battleships, but did not prevent their exit and re-entry later on. Four Russian cruisers went out of the harbor without difficulty.

The Japanese Fleet, on April 12th, made the seventh bombardment of the sea front and harbor, and some of the torpedo vessels planted mines outside of the harbor entrance. On the next day, a few cruisers of the Japanese Fleet again attacked and were followed out by a portion of the Russian Fleet, which turned back as soon as the main Japanese Fleet approached. The battleship *Petropalovsk* struck a floating mine and sank with Admiral Makaroff and a large part of her crew. Bombardments were attempted from time to time, but without serious results.

From April 27th to May 25th other attempts were made to blockade the entrance with scuttled ships, but they were only partially successful.

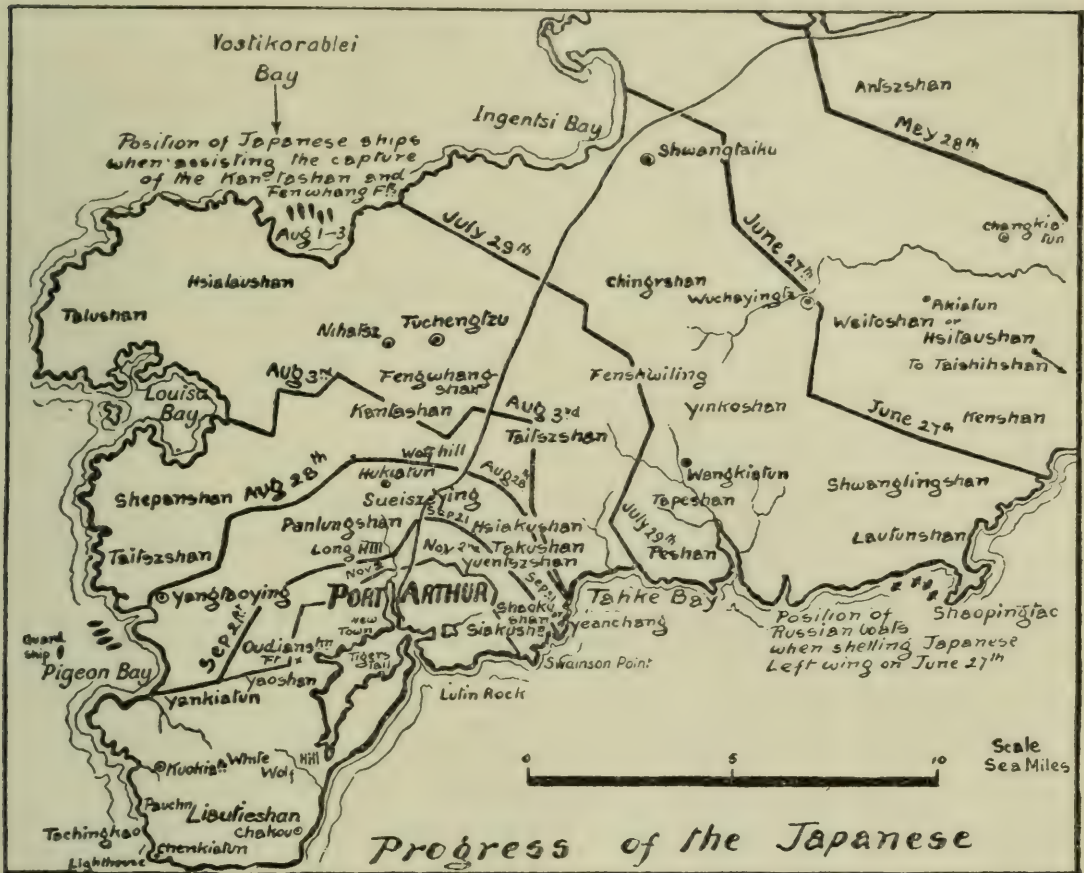
The Japanese battleship *Hatsuse* was sunk May 15th by floating mines. Some of the Japanese gunboats and destroyers effectively co-operated, May 26th, with the land forces in the attacks on Nanshan Hill. The Russian Fleet made a sortie from Port Arthur June 23d, but were repulsed with considerable loss.

On July 4th the Japanese made an attack in the harbor with their torpedo boats, and succeeded in sinking two Russian ships.

Admiral Withoeft left Port Arthur August 10th, with the entire Russian Fleet, and evidently did not intend to return. But he was met by the Japanese Fleet and, after a severe engagement, was defeated. A considerable portion of the fleet returned to Port Arthur. The battleship *Tsesarevitch* escaped to Tsing-Tau, where it took refuge in the neutral German port; three cruisers, the *Askold*, *Novik* and *Diana*, also escaped, the *Askold* to Shanghai, the *Diana* to Saigon, and the *Novik* to Korsakoff, where it was destroyed.



This may be said to end the direct naval operations of either fleet. The remainder of the Russian Fleet was practically interned within the harbor until it was finally destroyed by the fire of the 11-inch howitzer after the capture of "203-Meter" Hill. The *Sevastopol* went outside to escape this fire and was there disabled, if not sunk, by the repeated attacks of the Japanese torpedo boat flotilla.



## LAND OPERATIONS

General Oku landed his army at Port Adams and Pitsewo on the 4th, 5th and 6th of May. Admiral Alexieff, the Vice-roy, left Port Arthur May 5th, on what was probably the last train. The land investment of Port Arthur may be said to have commenced May 10th.

The narrow neck of the peninsula at Kinchau had been strongly fortified by the Russians. After landing his armies, General Oku attacked, May 24th, the Kinchau line; and on May 25th and 26th

after repeated attacks, lasting for twenty-four hours, Nanshan Hill was captured and the advance line of the Russian defense had to be abandoned. The fire of some Japanese gunboats and torpedo destroyers aided the land forces materially in this battle.

General Stakelberg, with 40,000 men, was sent to relieve Port Arthur, June 13th, but was defeated in the battle at Tellisin, with a loss of about 7,000 men.

July 28th. Intrenched villages Rinjan, Do-do-shan and Ryn-jubo advanced positions on the Russian left were taken by assault.

July 30th. Wolf Hill was captured.

August 9th. Battery Taikuzan, near the right of the defenses, was captured.

August 10th. General Stoessel was summoned to surrender, but declined.

August 11th. Battery Shokuzan, adjacent to Taikuzan, was captured.

August 12th. Takasikayama, on the left of the Russian advanced works, was captured.

August 19th to 26th. A general assault of the works was made; Fort Pauling was captured, but the attacks elsewhere were repulsed.

September 19. Kuropatkin's Battery commanding water-works was captured.

September 21st. Namicoyama Mountain was captured.

September —<sup>1</sup> Attack on 203-Meter Hill failed.

October 29th. Shadzuzan or Pine Fort was taken, but could not be held by either side, up to time of surrender.

October 31st. Wang Tai Hill was seized, but could not be held.

November 3d. Assaults were made all along the line in honor of the Emperor of Japan's birthday. Several works were taken, but were untenable and had to be given up.

November 30th. 203-Meter Hill was captured.

December 18th. East Keekwan was taken after having withstood repeated assaults since August.

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<sup>1</sup> Reports of this date are conflicting.



December 30th. Outwork of Etzeshan and Ehrlungshan was captured.

December 31st. Sungshushan, on main inner line, fell.

January 1st. Proposals were made by Stoessel for surrender.

January 2d. Liberal terms were accorded by direction of the Japanese Emperor and the surrender of Port Arthur was consummated.

At the time of surrender about 47,000 men were in the garrison. Of these, about 7,000 were sailors, 25,000 soldiers of all arms nominally for duty, and there were 15,000 sick. It is doubtful, however, if there were more than 16,000 men actually fit for service. The report stated that 24,000 men were surrendered, but this statement probably referred to the total number under arms. Considering the extent of the works to be manned and the constancy of the Japanese attacks, this number was entirely insufficient wherewith to continue a proper defense against the forces of the Japanese, about sixty thousand strong.

General Stoessel has been severely criticized by Russian officers for having surrendered Port Arthur. It was claimed that the food and ammunition had not been exhausted and that Port Arthur could therefore have held out for a considerably longer period. The fleet at Port Arthur had practically been destroyed. General Kuropatkin had failed to bring relief in the summer. He had since been seriously defeated and obliged to retreat farther away from Port Arthur. Winter had set in, so that an aggressive campaign before the spring was out of the question. The garrison had been much depleted by deaths, wounds and illness, and men for duty were weakened by the continual strain of the siege. The Japanese had gained commanding positions. Admiral Rojestvensky's fleet appeared to be unable to bring succor by sea.

One or even two months' longer maintenance at Port Arthur would have been absolutely of no value, and would have cost many more lives. It therefore appears that General Stoessel's action was absolutely correct, both from the points of view of expediency and humanity. The Russian defence of Port Arthur was characteristically stubborn, and the garrison did for its country's interest

all that could be asked of it, bearing the burdens of the siege uncomplainingly and heroically.

### SIEGE OPERATIONS

Regular siege operations may be carried on so that the outworks, and finally the inner works, can be destroyed and captured by regular approaches, with comparatively little loss of life; but such operations demand time and patience. It is a maxim of the military engineer that no place can be so fortified that it cannot be captured by means of regular approaches; this method requires time, however, if a minimum amount of life is to be sacrificed.

The investment consists of so guarding all approaches, on the land side by counter-fortifications and on the water side by blockading fleets, that no supplies of food, ammunition or reinforcements can enter the beleaguered position.

The reduction of the works by regular approaches consists largely of operations by sappers and miners. The pick, shovel and stone drills are the chief weapons in the preliminary stages. A strongly fortified line is first established, just beyond the effective range of the defending batteries. From this line at different points, a series of short, zigzag trenches or sunken covered ways are started. The direction and length of each branch of these covered ways is dependent on the direction of fire from the besieged works. The direction of these trenches is such that, if prolonged, the lines would not intersect the defenders' works. The besiegers are partially protected in these operations by their relative invisibility, in the sunken trenches and by sap rollers or portable shields of steel. Sap rollers are large cylinders built of basket-work, of wood, or of sheet-iron, filled with earth or other resisting material. Such rollers or shields will at least protect the sappers from the rifle fire, and the smaller calibre of artillery, until the trenches are sunken to some depth. Steel shields may also be gradually moved on rollers, so as to cover the head of the advancing trench. The sappers are themselves protected from assaults by the artillery placed in the primary lines and by forces held under cover at convenient points.



When these zigzag approaches reach suitable positions, which include locations for batteries, a new line is established. Continuous trenches and breastworks are built with strong supporting forts at favorable positions in the terrain. In all cases the precautions are taken that these forts shall be open to a fire of batteries in their rear.

The besieged are not likely to remain supine whilst the besieger is making these approaches. At favorable opportunities they will make attacks and endeavor to seize and destroy the works advanced by the enemy. When the attack chances to be successful, the besieged are driven out of their advanced works, the batteries in rear of the captured works commence fire and are likely to render them untenable. In these attacks and counter attacks a considerable loss of life ensues. This was particularly the case in the siege at Port Arthur.

Whilst the surface trench approaches are being pushed forward, subterranean tunnels are excavated to attain positions under the more important key points of the defense; and underneath these points are collected large mines of gun cotton or dynamite. When the surface trenches of the besiegers approach within striking distance of these mined positions an attacking force is placed in readiness and the mines are exploded. The assault in force immediately follows, taking advantage of the surprise and possible demoralization of the defenders. The works, either of the attack or defense, are sure to be subject to a severe fire from the supporting works in the rear and on either side of the captured positions. Merely entering these works does not complete the task of the assaulting columns. They must at once protect themselves by throwing up breastworks in what was formerly the rear (or gorge) of the works, to guard against the artillery fire which supports the rear, as well as the counter assaults which the defenders are likely to make. In the operations before Port Arthur, works were often captured and then recaptured by the artillery fire of supporting batteries followed by counter assaults. The defense are also likely to resort to subterranean mining operations in order to foil the mines of the attack, and blow up some of the important batteries of the investing lines. This is called countermining, when

directed against the mining approaches of the attack. As in times past, subterranean fighting occurred when mining tunnels and counter-mining tunnels met; and such combats are more trying to the courage of the combatants than conflicts above ground. A number of such conflicts are reported to have taken place during the present siege.

There have been very few novel features in this siege. The various arms exemplified advances in the art, but they were the same in principle as those used in earlier sieges. It is obvious that the spade, the pick and rock-drilling tools have been important adjuncts, as they were in the earliest sieges known to history.

The land defenses of Port Arthur were particularly well provided with artillery armament of the heaviest calibres, including the 11-inch gun and quick-firing guns of even 6-inch calibre. The works were originally well armed; a large proportion of the armament of the Russian Fleet was also taken ashore and placed on the defenses, chiefly on the land side; and these guns were frequently manned by sailors, who were well used to them.

The artillery of the defense was heavy and of long range, and caused the besiegers' trenches of the first parallel to be opened at a greater distance from the advanced works of the fort. The long range of the guns also gave advantages to the besieged in the earlier stages. They were able to concentrate from a longer front a larger number of guns upon any one point. Hence the besiegers were, in the beginning, at a disadvantage; and a considerable time had to elapse before they could place in position the requisite number of guns to give their artillery fire a predominance over that of the defense.

The Japanese were well provided with siege artillery. On October 1st they began firing some 11-inch howitzers. These were of unusually large calibre for siege operations and required concrete platforms to be constructed. Their shell of 500 pounds, with the altitude of the gun above water-level, could attain ranges of at least seven miles, at high-angle fire. These guns were fired with considerable accuracy against targets, not directly visible from the gun positions. In some cases, the shell passed over two



intervening ridges and hit the targets they were aimed at. Balloons communicating with the guns by telephone were successfully used to correct their fire. Observers also took positions where they could see the enemy, and with the telephone were able to direct the gunners. When "203-Meter" Hill was captured, eighteen of the 11-inch howitzers were established and by their direct fire destroyed or rendered useless the Russian Fleet anchored within the harbor. Their fire into Port Arthur itself had a demoralizing effect, as there was no bomb-proof which could afford protection from the impact of the 500-pound shell. The battleship *Sevastopol* left the inner harbor to escape this fire; but she went "out of the frying-pan into the fire." She was disabled by successive attacks of the Japanese torpedo boats.

A large number of quick-firing siege guns of various calibres succeeded frequently in silencing the Russian fire and protecting the sappers and miners while they advanced the trenches of the regular approaches.

Whilst the artillery fire on both sides was particularly severe, it is questionable whether it caused as many casualties as did the fire of the small arms and machine guns. Artillery is demanded for long-range work and to break down barriers, but the small arms, especially the rifles, are still considered the most important weapons. They are the chief reliance of both attack and defense. The artillery fire is more impressive, but infantry fire with the rifle kills and disables more men. It is reported that encounters with the bayonet were very frequent. As yet there are no statistics available of the casualties from the use of the bayonet in actual combat. But it is safe to predict that the percentage of those wounded with the bayonet is very small. That there may have been some conflicts with the bayonet, is conceivable; but these are likely to have taken place only when the supply of cartridges was exhausted. In view of the general prevision of the Japanese, we can hardly believe that there were many instances where the troops were sent to the assault with an insufficient supply of rifle cartridges.

The rifles, on both sides, were of the magazine small-bore, high-velocity type. The new Japanese rifles give a velocity of

nearly 2,400 feet per second. This high velocity bespeaks long effective ranges, and a very flat trajectory or path of flight of bullet for moderate ranges of about 1,000 yards. This means greatly increased danger spaces to troops advancing in the open to the attack of troops behind entrenchments. The danger is greater when the advance is over gentle slopes than when it is against precipitous positions, although it is frequently thought that positions physically difficult to approach are likely to be more easily defended.

Smokeless powder was extensively used by both combatants, for infantry and artillery. It was of the nitro-cellulose class. The nitro-glycerine class to which the English Cordite belonged was probably not used to any extent. These smokeless powders have replaced the villainous saltpetre of other days.

Machine guns of rifle calibre were demonstrated to be most valuable in checking the assaults of the Japanese. None but troops like the Japanese, entirely regardless of their lives, could have succeeded in pushing charges to a successful issue in face of the combined fire of machine guns, rifles and artillery. It would appear that a successful attack in the face of machine guns was impossible, unless it happened that the ammunition gave out, or a cartridge jammed and threw the gun momentarily out of action.

Hand grenades are reported to have been used extensively by both combatants in the frequent attacks on the Russian works. These are small shell or shrapnel having a projecting plunger which impinges on a percussion cap within the grenade. A spiral vane is attached to the other end of the shell, so that the plunger end is kept to the front, striking the ground, and thus bringing about the explosion of the cap. The Japanese, when brought to a standstill close to the Russian works, used improvised mortars made of bamboo and, with small propelling charges, sent the hand grenades within the breastworks.

The Russian hand grenades were probably charged with gun cotton, whilst the Japanese hand grenades may have been charged with the new Japanese high explosive, "Shimose" powder. This is said to be used as a bursting charge for shell, etc. Very little is known of it, but from points given here and there of its char-



acteristics and action, it is presumed to be of the Picrate class, such as the French "Melinite" and English "Lyddite." Whilst reports of its very great power are constantly appearing in the newspapers, it is doubtful whether it exceeds Melinite or Lyddite, *when fully and properly exploded*. In this respect Dr. Shimose may have made some advance because the explosives of this class cannot be readily detonated or exploded, and thus they frequently produce an explosion of a low order, emitting a large volume of suffocating gases.

The Russian land mines were not successfully exploded in many instances. The pitfalls, with concealed sharpened stakes, could not have been constructed readily in the hard and rocky terrain in the vicinage of Port Arthur, and they were consequently little used. Entanglements of barbed wires were, however, very extensively employed by the Russians. They were generally placed in two lines, about 100 and 600 yards respectively in front of the works. It is said that these lines were sometimes heavily charged with the electric current. In preparation for their assaults the Japanese sent pioneers to cut the wires with cutting pliers, but not infrequently bamboo tubes charged with high explosives and ignited by slow matches were thrown on the wires. The explosion would thus open a way through the entanglements. Where it was thought that the wires were charged with the electric current, metal tubes were stuck into the earth and bent over on the wires, thus "grounding" the current. There is little doubt but that these wire entanglements, whilst eventually removable, delayed the assaulting columns and helped to increase the casualties of the besiegers.

Wireless telegraphy was the only novel feature in siege operations at Port Arthur. It enabled the besieged to maintain communication with Chefoo until August 31st. It is difficult to imagine a condition of blockade which could prevent such communication. In many ways, therefore, the conditions prevailing in sieges of the future will be changed. All permanent works are likely to be provided with necessary equipment for this purpose.

In this new system of telegraphy the electric waves go out equally in *all* directions; but no means have yet been found to se-

cure action in only one desired direction, and consequently much of the energy is wasted. The corresponding recipient of a wireless message must literally come within its "sphere of influence." The lack of definite directions is especially disadvantageous for land work, but for correspondence at sea when the locations of vessels are unknown, this action in all directions is of decided advantage. Wireless telegraphy, as developed, is effective for greater distances over water than over land, and the distances attainable are of course dependent upon the power of the electric plant as well as the design of the instruments. War vessels are now provided with powerful electric installations.

Interference between various stations, acting within the same sphere of influence was, at first, difficult to avoid. But this has been partially accomplished by what is technically designated as "syntony." Briefly, this may be called the tuning of the arembes of various stations to the same key-note. But with all this, the skillful operator of an enemy can manage to read the messages, and those skilled in the art can ordinarily succeed in interpreting any ciphers.

On land work, it has been found that by connecting the instruments directly to trees (driving a nail into them for connection), fair results are secured within a radius of a few miles.

Much is yet to be devised and created in this field of immense possibilities. Some of these possibilities have been realized—others must be sought for, and will be found by the scientists who patiently investigate the fundamental principles involved. The various systems in use, each claim peculiar advantages, but they each have inherent shortcomings, which must be removed before they can be considered fully successful.

The Japanese investing fleet was enabled, with the aid of the wireless telegraph, to keep a considerable distance from the entrance to Port Arthur, and still come up in time to engage the Russian Fleet whenever it attempted to escape. Thus they were always available for action, but were too far away to be attacked by the Russian torpedo boats. The ships were enabled to cruise at considerable distances apart, but with the aid of the wireless telegraph they could be readily assembled for co-operation.



The telephone was of great advantage to the Japanese in all their operations. The commanding generals were thus kept in close and constant touch with all the units of their commands, and this permitted a full and intelligent co-operation over a considerable frontage of line. The battle about Liao Yang was fought along a frontage of from forty to fifty miles, but with the same accord and co-operation of the various units as if the battle extended for only three or four miles. The Japanese armies are probably more completely equipped for telephone intercommunications than any which have previously taken the field. This is but one of the elements wherein is exemplified their thoroughness of foresight and preparation.

Searchlights were freely used on the land defenses and by the Japanese and Russian Fleets. Experiments have demonstrated the insufficiencies of the searchlight at sea. In a series of experiments with searchlights by the United States cruiser *Nashville*, it was found that, on a dark night, the approach of a torpedo boat could be detected at an average distance of 781 yards. On a bright moonlight night, the torpedo boats could approach even more closely without being detected by the searchlights. No such definite experiments are known to have been made ashore. But there is no reason to suppose that the light would be more effective on land than on sea. Much would depend on the character of the background, but it may be assumed that bodies of troops would have a fair chance to approach, undiscovered, within half a mile of the works to be attacked. In the land defenses the searchlight can be of very great value to the defense, enabling them to illuminate the part of the field near the works and make it doubly dangerous to the attack. The possibilities of the use of the searchlight at night should emphasize the necessity of avoiding anything bright and glinting in the soldiers' equipments. For even if the attacking parties are otherwise unseen, the reflection from parts of the equipments, equivalent to signal flashlights, will give warning to the defense. The searchlight is, of course, most effective on dark nights.

Shells similar to those employed in pyrotechnic displays enabled the Russians to illuminate simultaneously larger areas than

was possible with the searchlight. Rockets emitting parachutes carrying white lights which burn a minute or more are also very effective, but they do not appear to have been utilized.

One of the notable features of the siege was the hearty and effective co-operation between the Japanese naval and land forces. Throughout there was shown great prevision and full provision to meet the various demands necessary for siege operations of this magnitude. The Japanese Fleet was, in the main, victorious in all its encounters with the Russian ships. Their chief function was to neutralize the Port Arthur Fleet so that it could not interfere with the transport of the large armies which Japan was sending to the mainland in Korea and Manchuria. It also aided in the blockades which materially assisted in finally securing the surrender of Port Arthur. But its various bombardments of the forts on the sea front as well as of the town produced but little material impression. The blockades of the entrance of the harbor were not successful, and without the land investment and attacks, Port Arthur might have held out indefinitely against the fleet alone.

The Japanese have scored greater success in the use of automobile torpedoes in warfare, than any other nation. But these results were largely obtained against an enemy not vigilant at the time of attack. It is true that a subsequent attack was moderately successful, after the Russians had been put on the alert by the first attack.

Fixed floating mines, to be fired by observation at will, or by accidental contact, were planted by the Russians in Port Arthur Harbor, chiefly at the entrance; but they did not give any direct results. The Japanese planted some floating mines in the rear of the Russian fleet, when they went out on April 13. One of these mines sank the battleship *Petropalovsk*, and this action was repeated by the Russians, who sank the Japanese battleship *Hatsuse*.

It is claimed that the Russians, and also the Japanese, set afloat a considerable number of contact mines, which were found at very considerable distances from Port Arthur. These drifting mines greatly endangered the vessels of neutrals, a danger which might extend not only hundreds but thousands of miles away, as it is a



well-known fact that floating objects are found at sea, drifting thousands of miles distant from the point of starting. One mitigating explanation is that these mines were originally planted and anchored in places entirely warranted for the belligerents, but, not being well anchored, they broke away and drifted about. The utmost care in this respect can very properly be demanded by neutrals from both belligerents.

Owing to the large measure of success attained by the Japanese torpedo flotilla at the opening operations, there was an hysterical outcry that battleships were doomed and that no more need be built. How little foundation there was for this is indicated by the very small influence the torpedo vessels had upon subsequent operations. If the Japanese Fleet at Port Arthur had consisted only of cruisers and torpedo vessels, the Russian Fleet of battleships, cruisers and torpedo vessels would undoubtedly have escaped, and perhaps destroyed the Japanese Fleets. The Russian torpedo flotilla accomplished very little. So unless there is a universal agreement to the contrary, the battleships must be built, even though one happens, now and then, to succumb to the attacks of the torpedo or submarine boats. The Emperor of Japan has announced that a flotilla of submarine boats is now ready for service; and we await with great interest their entry upon the scene of hostilities.

It was notable that during the siege the Japanese assaulted works which ordinarily would be thought impregnable to direct attack. But the assaults very frequently occurred at night; the advances were cautiously made, every advantage of cover, afforded by the accident of the ground, was taken and the trenches were brought close to the point of attack. When, however, it was necessary to disregard these precautions, the Japanese exposed themselves unhesitatingly and with great recklessness. The comment made by a French general regarding the charge of the Light Brigade in the Crimean War, "It is magnificent but is not war," might well be applied to many of the very strenuous assaults of the Japanese troops at Port Arthur; and it might well be modified to the comment that the assaults were magnificent, but in many cases could have been avoided.

These great sacrifices, apparently needless, may be of value to Japan in its future relations with the Powers. They demonstrate how little its sons reckon the loss of life, if it is given in the service of the Emperor of their beloved country. The war potentialities of Japan will be measured, not by its population and area, but by the genius of its people for war, their patriotism and their entire and reckless self-abnegation, when the welfare of their country appears to demand their lives. They have fully responded to their Emperor's rescript of some years before, that they were expected to do the impossible in their country's service.

Whether Japan fails or succeeds ultimately in the present war, the siege and capture of Port Arthur marks the entry of Japan in the ranks of the so-called Powers.



# THE POLITICAL AND RELIGIOUS CRISIS IN FRANCE.

CHRISTIAN SCHEFER

THE religious question dominates the political situation in France to-day. There is now before the Chamber of Deputies a projected law concerning the régime of the Church; almost every question of the hour reverts to this problem, and it occurs more or less apparently in nearly all of the greater undertakings. For several years it supplied the sole bond between the factions of an anomalous parliamentary majority and thus assured the life of the Combes ministry. It is this question that has frequently furnished the opposition with its most dangerous weapons.

The passions, in short, that it arouses in one direction and another, daily increasing in violence, have finally brought about a state of acute crisis, the results of which will certainly be felt for many years, and may lead almost immediately to very grave measures which will stir the country to its depths. But it is not wholly on this account and for the sake of mere curiosity that this situation should receive the attention of strangers. To many of the latter, at least in Europe, the recent events in France can furnish a warning and occasionally a lesson. The problem that we are discussing with so much warmth has already come up or will soon come up in a number of countries. For the question is none other, in a word, than the determination of the necessary relations which a modern state must assume with religion; that is to say, the philosophic or scientific doctrines, the essential principles of individual liberty must be harmonized with the rights of the civil state, with the legitimate requirements of believing citizens.

Nothing could be more complicated or more delicate. In order to solve completely and dogmatically the question thus raised in all its breadth it would be necessary to explain the underlying principles and with that object to plunge into the most abstract discussions of political science, of ethics, even of theology. Needless to say I have no intention of undertaking such a task in a modest essay of a few pages. Having pointed out carefully that I do not in the least mistake the very general bearing of the problem,

I intend simply to try and acquaint the readers of this review with what is going on in our country so that they can understand the reports that their newspapers bring to them. I mean to explain why the problem has come up so abruptly and brutally, to state the terms in which it is presented, and the nature of its real elements.

Of the thirty-eight million inhabitants which form the population of France, there are only 600,000 Protestants and 50,000 Israelites. The Roman Catholics are, therefore, in an immense majority in the country. "Only apparently," the enemies of religion hasten to add, insisting that a great number of Frenchmen, Christians only in name, have really no religion. The point is difficult of discussion, for sincerity of belief scarcely lends itself to statistics. We can, therefore, assert merely that the bulk of the country practices the Catholic religion, at least in the important events of life, and that particularly in the country almost every one requires the presence of the priest for baptisms, marriages, and burials. To this first observation must be added another not less essential. The cause, and one might even say the idea, of the religion of Roman Catholics, cannot be separated from the existence and the cause of the Apostolic and Roman Church of which the Pope is the spiritual head. This church has representatives of two kinds. In the first place, the secular clergy, that is to say, the hierarchy of archbishops, bishops, priests, and vicars, who provide for the service of parishes. Then there are the "regulars," the monastic orders of the two sexes, who are devoted either simply to prayer or to charitable works, to instruction, or to preaching, and thus reënforce at times the parochial clergy in the fulfillment of essential parts of their ministry.

The "regulars" are dependent almost solely on their superior-generals, who hold only from the Pope; and thus they generally escape from the authority of the bishops. Consequently there is a difference of position that occasionally brings with it a certain rivalry, which differing tendencies, even veritable questions of custom, frequently emphasize. But if the faithful sometimes manifest more marked sympathies for the one side than the other, each is none the less regarded by the Church as indispensable to



its normal life and development. To take issue with either is to take issue with the Church itself. If one understands that fact and joins with it the observation made at the outset in regard to the numerical position of Catholics, it may readily be seen that the religious problem in France is concerned with the proper functions of secular Catholic priests, monks, and nuns; and the solution of the problem will determine what facilities are to be left the faithful for observing their religious duties, because if a priest does not say his mass in freedom, the parishioner cannot perhaps hear it, and if the monk has not the right of preaching, the believer will perhaps be prevented from listening to the word of God.

Although a little too simplified, this manner of looking at things remains on the whole sufficiently exact. Neither the Protestants nor the Jews are absolutely negligible quantities. Their part, however, is very unimportant. In the last analysis and in view of everything, I shall have about fulfilled my task if I succeed in describing the position which, up to recent times, has been granted to the regular representatives of the Catholic Church, the protests against this position, and finally the measures already taken or which are now proposed for the establishment of a new order of things.

The present crisis has been acute for four years, but it originated in 1878, that is, at the moment when the government of the third Republic, until then in the hands of the monarchical parties, or at least of the "liberals" without label, passed definitively into the hands of the old militant republican party. We shall, therefore, first try to define the position of the Church in France at about the year 1878.

The organization of the Church was the result of the events of the Revolution, and had not changed since the time of Napoleon I. Before 1789, under the Old Régime, the Church had 140 archbishops or bishops, 130,000 priests or members of monastic orders, property valued at thousands of millions, even in money of the time, and extensive privileges, the most important of which was exemption from taxation, that made the Church a genuine power with which royal prerogative was obliged to count. Then came the Revolution, which suppressed all privileges, those

of the Church as well as of the nobility. It confiscated ecclesiastical property to meet financial difficulties, giving a mere annual salary as an indemnity to the priests. For politico-philosophic reasons it also suppressed the convents, which were considered in the way or dangerous. When these measures and others like them roused protests from the clergy, the priests were persecuted.

Beginning in this way, matters soon went farther. Various pretexts made it possible to find fault with all priests, then with religion itself. Catholicism was accused of being injurious. The worship of the Goddess of Reason was set up in the cathedrals, and at the close of the Convention, as under the Directory, France was prey to frightful persecution. When Napoleon became First Consul he hastened to put an end to it, for in order to consolidate his new-born power he had to secure quiet at home as well as peace with foreign countries. For this purpose he could have guaranteed mere liberty of worship, allowing the establishment of an independent Church in a strictly secular State. This he did not desire. His habitual tendency to make the State predominate throughout was complicated in this particular case by the wish to make use of the Church as an instrument of government. He was dreaming already of retaining the people by religion, of imposing, as he did later, texts of sermons appropriate to his views, and of inserting in catechisms the threat of eternal punishment against whoever should not obey him. He negotiated a treaty or "Concordat" with the Pope, which was signed in 1801, and which he strengthened on his own authority by the addition of a special law known as the "organic articles." France was divided anew into dioceses, but fewer in number than under the Old Régime. The bishops, who named the priests, were themselves named by the government, and received canonical appointment from the Holy See. None of the property confiscated by the Revolution was returned. The priests of all orders received a salary deducted from the public budget, and therein lay the essential feature of the system. They were all functionaries that the government rewarded, supervised, and on occasion visited with disciplinary punishment. The Church had become a branch of the public service, in the same way as justice or the post-office.



At the same time it was strictly limited to a purely religious part. Napoleon did not permit it to resume instruction, which it dispensed almost alone under the Old Régime, and in the founding of the University of France also rendered a great public service. Napoleon, in short, consolidated and organized in this way only the secular clergy. The Concordat guaranteed nothing to the monastic orders. The emperor distrusted them, since thanks to their canonical position they were free of the bishops, and consequently would be free from his control; and he forbade them henceforth to set up in France any establishment without the express authorization of the government. A like state of affairs has lasted to our day; the Concordat is still in force at the present moment, and it is thus that the Napoleonic organization appears to be like the first element of that situation at the beginning of the third Republic which we are trying at the present moment to describe.

The real position of the Church had been greatly modified, however, under the governments which succeeded the first Empire. The condition of the secular clergy remained about the same, while on the other hand, the establishments belonging to some monastic orders became steadily more numerous, more active, and richer. Since the previous legislation remained in force, authorization by government was still necessary. But the successive governments very willingly granted such authorizations, and many monks thought they could get along without them, counting on the indulgent sympathy of the authorities. Thus a truly absurd state of affairs came to pass. The monastic establishments found themselves divided into two classes: those provided with a regular authorization, and those which were without it. The first order of monasteries, with their legal existence, had the right to acquire and to hold property; and the second, also, possessed large properties, receiving inheritance through the aid of legal artifices. The existence of this illegal practice was admitted by the State, which made the monasteries pay taxes, and, under certain circumstances, claimed their coöperation.

Most of these religious orders were not, in fact, devoted to the contemplative life. Many busied themselves with the poor and

the sick. But they were not satisfied in that case with establishing houses of refuge or special hospitals. They often supplied the *personnel* of official establishments; in all the government hospitals, for example, the nurses were sisters of charity. Other orders were given over to teaching. Successive laws finally permitted the placing of ecclesiastics as masters in the primary schools and authorized individuals to open establishments of instruction. Many of the popular schools were thus entrusted to monks or nuns, and numerous establishments for secondary and superior instruction were opened where only ecclesiastics were teachers, competing seriously with the government institutions. Always in theory under the severe legislation of Napoleon, the representatives of the Church came to hold a very large position and to play a very considerable part in the life of the country. To state exactly the position of the French Church at the beginning of the third Republic, it is necessary to add a few more details to the above description, and to say a word about the moral elements of the situation.

Since the first Empire the Church had greatly developed its scope and means of action through the sympathy or the goodwill of the successive governments. But is it true that this sympathy always had its source in a disinterested love for religion? Evidently not. Many governments favored or tolerated the progress of the Church because French Catholicism was in certain respects a political party and in this way had at its disposal an electoral strength which they needed. The French Church had been, as we have seen, a victim of the Revolution, of the very Revolution that had at the same time and by the same means persecuted the nobility and destroyed the monarchy. Thence also among representatives and militant defenders of the church there came a marked sympathy for monarchy. Thence also among representatives of the ancient aristocracy and the champions of a royalist restoration there was a perpetual tendency to identify their causes with that of religion. In a more general way, even, all those who feared new political or social disturbances turned toward the Church; and if it took the considerable position I have indicated in the country, it was because the upper bourgeoisie, until



that time relatively sceptical, thought best to be officially converted, and to favor the Church, especially in the way of instruction, with the hope of checking the progress of a threatening socialism.

By a fatal reciprocity the more or less advanced parties from the revolutionary socialists to the simple "liberals," passing through all degrees of republicanism, showed themselves adversaries of the militant Catholics. Often their quarrel was only with an unskilful defender of religion and not with religion itself. But in matters of dispute it is not easy to preserve the fine shades. Faith thus became an electoral merchandise, the religious question an element in political contests, and instead of reacting against such a state of affairs, the defenders of the Church, on the contrary, did their best to emphasize it. Between 1871 and 1873 it is well known that there were unhappy attempts at a royalist restoration. The Catholics then threw themselves as such into the fray, and the clergy at the head committed the astonishing error of unreservedly identifying the cause of the Church with the cause of monarchy.

One sees, then, how things stood when the republican party, victorious in the electoral struggle of 1877, finally got into power.

The French Church held a very important position in the country, official respect surrounded it, and even outside of religion properly so-called it played a part in the running of great public services, particularly of Relief and Instruction. The position of certain of its members was perfectly definite, thanks to the Napoleonic Concordat; and others were in a strange plight, since a number of Congregations, and not the least active, had only a *de facto* existence. Lastly, and unfortunately, the Church could be looked on as the ally of a political party, and of precisely that party which had just sustained an irreparable defeat.

This last point may seem unimportant: as a matter of fact it involved perhaps the gravest consequences. "Clericalism, there is the enemy," Gambetta had exclaimed at the end of a discussion in the Chamber, and this formula, which soon became the device of a goodly number of republicans, sounded like a war-cry against

the Church. Only the very advanced radicals and the socialists, it is true, haunted by revolutionary memories and full of so-called "scientific" pretensions, proclaimed themselves irreconcilable adversaries of religion. Moderate republicans, who were still dominant, were often good Catholics, but they, too, condemned "clericalism," that is, the intrusion of priests and monks in politics. They wanted a government strictly of the laity, of an absolute religious neutrality, which would respect liberty of conscience in all men; a programme to which the advanced rallied, biding their time to emphasize it in the application. Hence, particularly in the time of Jules Ferry, arose a long series of measures having constantly in view the "laicising" of instruction, for instance, the substitution of lay masters for monks in all the primary schools of the State. And they also went much farther. They expelled with a certain brutality some religious congregations, arguing that they were not "authorized." They secularized to excess the public service, going so far as to discharge the nuns from the hospitals on the pretext of respecting the liberty of conscience of the sick. In all these acts, and especially in the way in which they were determined and construed, there continually appeared a desire on the part of a victorious party for retaliation against the vanquished. At this time, however, the Catholics should not have been considered adversaries of the existing régime. Pope Leo XIII. was, in fact, reminding the French that the Church was not committed to any form of government, and was directing them to "rally" to the Republic.

These instructions agreed perfectly with the wishes of the majority of the faithful and the clergy. On the other hand, they were hostile to the views of various prelates, of the political leaders, and of all those who saw in religion above all a political weapon. Among the latter many refused to obey. Among those who pretended to submit there were many who acted with evident bad humor, letting it be clearly understood that they considered the Republic only as an unlucky and last resort. They were consequently distrusted by genuine republicans. Remaining faithful to the tendency which confounds religion with the preëminence of the Church, they protested indiscriminately against everything the



government did and cried out a little too easily at persecution; and these complaints further exasperated their adversaries, the most violent of whom declared Catholicism incompatible with the Republic. Hostilities were maintained thenceforth, and a state of chronic irritation set in, which could perhaps have been allayed in the long run had not parliamentary incidents led rudely to the acute situation that we are now describing.

The fact is, in the month of June, 1899, as a result of circumstances, the story of which would carry me completely away from my subject, M. Waldeck-Rousseau came into power and formed a coalition ministry supported by a coalition majority. This mixed government found itself forced to the paradoxical task of associating in a common work republicans almost moderate, defenders of the social order, fiery radicals, and collective socialists. A common interest had constantly to be sought for grouping such heterogeneous collaborators. This interest was found at first in purely political artifices, such as prosecutions for plots, and a suit before the Senate sitting as a high court of justice; then, finally, in an attitude clearly aggressive to religion, or at least to its representatives.

The Cabinet gave satisfaction by such action to the advanced groups of its majority which were not in accord on financial questions or social problems, but were all animated by a common hatred against Catholicism; and it succeeded, on the other hand, in not alienating its less anti-religious partisans by carefully arousing in them all the old republican rancor against "clerical intrigue." The culminating point of this policy was the drawing up and putting to vote of the law of July 1, 1901, on the contract of association. In France, which had called itself liberal and for thirty years republican, the citizens did not enjoy the right of uniting as seemed good to them for any purpose whatever. To put an end to such a state of affairs was an excellent work. But M. Waldeck-Rousseau and his majority were careful to exclude the religious associations, that is, the monastic orders, from the benefits of the new law; even more, to insert in the law measures permitting the persecution of the associations, and unfortunately for the honor of the republican party, it is certain that the law was carried

less as a liberal organ than as an engine of war against the congregations.

It was a dangerous road to set out on. M. Waldeck-Rousseau, a superior intellect in spite of certain weaknesses, understood this, and the desire not to go too far was probably one of the causes that removed him from power. But his successors had neither the same scruples nor the same relative moderation. The consideration shown by M. Waldeck-Rousseau for the very advanced elements, genuine revolutionists, had made them more and more exacting and arrogant, and the ministry presided over by M. Combes had just as much need of them to assure its majority. As a ministry of coalition it could find a common ground among its various adherents only in hostility to religion. Then, too, its head, M. Combes, had not the skill and the high authority of his predecessor. He often obeyed rather than commanded, and thus became subject to the most violent.

The policy of religious aggression has daily grown more emphatic. The arrangements of the law of 1901 which provided for the congregations have been executed with the greatest severity, and even considerably aggravated in practice, and almost all of the religious communities have been dissolved, despoiled of their possessions, and driven forth, while new laws sought to deprive their members, even individually, of the right of teaching. The government, in short, was going still further, and after attacking the monastic orders was deciding to proceed against the secular clergy and the secular organization of the Church in France. There, however, it came into collision with the Concordat of 1801, that is to say, a treaty, a synallagmatic contract.

Taking advantage of the fact that the present Pope has not perhaps all the admirable political adroitness of Leo XIII., the government irritated to its own satisfaction a little difference, insignificant enough at the outset, and made it a pretext for recalling its ambassador and breaking off all diplomatic relations with the Vatican. It caused the announcement, furthermore, that this was only a first step. The formal denunciation of the Concordat was to follow, with the elaboration of a new régime for the Church in France. In fact, a commission from the Chamber had already



studied and approved a project for a law drawn up by the socialist party which defined this régime, establishing the principle of complete separation, by which the Church should cease to be a branch of the public service subsidized by the State, and should exist independently on its own resources, without aid or special guaranties. The government, for its part, says that it would accept this system, and officially draw up its own text, which differs from that drawn up by the commission from the chamber only in precautions a little more stringent.

But in the meanwhile the ministry of M. Combes has been forced to retire and give place to that over which M. Rouvier presides. He is personally a moderate and anti-religious. Politics have small attraction for him. However, on finding himself in the presence of the deputies of the former ministry he was forced to construct his majority by making concessions to the violent. He has chosen his co-workers in the liberal groups. The services of the creeds have been attached to the folio of Public Instruction, which has been given to M. Bienvenu-Martin, whose opinions are extreme; and, finally, the new government has drawn up a project for a law governing the régime of churches, a project less sectarian but noticeably better drawn than that of M. Combes, and with principles which will lead to practically the same result.

The organization of a really independent and free Church would give rise to a number of difficulties in a country where the Church has for centuries been incorporated in the machinery of government. To cite a single example, it would be necessary to regulate, and that would not always be easy, the question of the ownership or the use of the buildings of worship and their dependencies, which belong for the greater part either to the State or to the various districts, and sometimes under rather special conditions. But these difficulties are not foremost at present. Profiting by M. Waldeck-Rousseau's law, associations would, of course, be formed to receive subscriptions and to assure in every way the working of the religious organization. Now an attempt is being made in advance to hinder the normal life of these associations; it is desired, for instance, to limit their power of acquiring and of holding property. The common law would no

longer exist for them. There is talk of reducing the ceremonies of worship to public meetings, more or less supervised by the police—a condition which would in some cases interfere singularly with the religious offices. Perhaps the preachers would not enjoy the independence of speech which is granted to even the lowest tavern orator. With vaguely liberal formulas everything would be so arranged as to paralyze the Church, and in paralyzing the Church to hurt religion itself as much as possible.

What will be the fate of this project? It is impossible to foresee at the moment I am writing these lines. In view of the objections that it has raised even in the ranks of the majority and of the increasing confusion of the parliamentary situation, it is possible that without daring to disown it, the promoters will try to prevent its coming to a head. In any case, one fact remains. Whatever may happen, the question of the separation of Church and State has formally been put. If it is not solved this year, it will serve as a platform for the next elections, and since nothing is worse for the life of a country than fruitless agitation about irritating questions which are not frankly approached, it would be highly desirable to have this one thoroughly discussed.

Whatever religious opinion one may profess, it is perfectly permissible to ask one's self whether the imperial system which still survives does not cut a strange figure in a country that wishes to be democratic, and if it would not on that account be better to substitute for it another system with less official control and political chicanery. And if such a result came to pass, there might be wide consequences, even in other domains than that of religion. It is well known that the imperial system has survived in France in a very large measure. The revolutions which have successively swept out emperors and kings have respected the imperial administration, always as relentlessly centralized, always imbued with the same traditions of minute interference. The citizens are enclosed in a formidable network of rules of every kind, and whenever they undertake anything, no matter what, the representatives of the State intervene on the pretext of protecting them or of directing them. Each member of this people declared sovereign as a whole is thus constantly treated like an incapable child or



watched like a dangerous conspirator. To alter the status of the Church would destroy one of the most shocking features of the old monarchical organization, so strangely at war with the pretensions of our present régime.

Such action would assure French Catholicism a more independent and worthier existence, and would also accustom the country to the use of a larger liberty, would force the public administrations to a more tolerant modesty, and consequently open the way to those "democratic" reforms, in the true sense of the word, which are becoming very urgent,—if, as some wise observers assert, the unrest from which the country now suffers has arisen principally from the contradiction between the essence of the government and the principles of the administration. But in order that a legislative reform may be politically advantageous to the country and not injure any legitimate interest, nor attack the faith of believing citizens, it must evidently be maturely studied, discussed without hatred or prejudice, and carried out in a spirit of tolerance and moderation.

The preservation of the Concordat and of the Church as a branch of public service is demanded by a goodly number of militant Catholics who fear a separation made with a view to persecution; and they also ask themselves where they can find elsewhere the forty millions annually allowed to the budget of worship. Others come to the same conclusion, because as moderate republicans they do not desire a persecuting separation and fear that the Church, left completely free, might play a considerable political part in the country; the Concordat seems to them an excellent instrument for preventing the spread of "clericalism," so violently denounced long ago by Gambetta. The separation is asked for, on the contrary, by all advanced radicals and by the socialists, but for the most part with the intention, as I have said, of injuring religion and of "dechristianizing" the country. It is also extolled both by ardent Catholics and by genuine liberals; the first find that the Concordat gives the civil power too much hold over the Church, and the second that it tallies decidedly ill with the principles of a modern democracy. Neither side desires the régime of combat that is proposed. They desire the

separation of Church and State, but not a separation carried out with sectarian ideas. In a recent discussion in the Chamber, one of the most conspicuous liberal orators, M. Paul Deschanel, made a speech in favor of separation, but finished by taking a position against the government that would recommend this separation; and in truth the projects of the government are often attacked in the journals by those who at bottom desire separation. Hence a first source for perpetual confusion. The Catholics further assert, not without reason, that they are injured by the proscription of the monastic orders and that their faith is threatened by the designs of the parties in power. To defend themselves they invoke the rights of citizens and the principles of republican liberty. I admit that they are sincere: it is impossible to forget, however, that of old when they were confusing the cause of religion with the cause of the monarchists, they fought the Republic and made a good bargain of the rights arising from the Revolution.

Their present adversaries have, therefore, a pretty case in accusing them of bad faith, but these adversaries do it none the less with very bad grace, for the very ones who have worked to overthrow monarchical governments, whose oppression they found fault with, show as intolerant a spirit as the most severe of those governments. They vainly declare themselves to be faithful to their ancient principles; they certainly interpret them in a new fashion. So often and so well do those in power in each party invoke the traditional doctrines of the opposite party that calm spectators no longer know as a matter of fact how to interpret the words of liberty, of tolerance, or of progress which form the basis of the disputes.

And the latter are all the more impassioned because every one knows that it is not solely the administrative position of the Church that is at stake. I have spoken of the hostility of the parties now in power toward religion itself and their persecuting intentions. These intentions are openly avowed by some. One of the leaders of the radical party, M. Ranc, has repeated again and again that the separation should be made only after substantial "laws of precaution" have been promulgated against the Church.



The preponderant influence exercised at present on our governments by freemasonry is well known. Now, French freemasonry has for thirty years taken a position systematically opposed to all religion. A recent scandal which stirred deep feeling in the country was the publication of confidential notes of "*fiches*" stolen from the "*Grand Orient de France*," which pointed out to the minister of war officers whom he ought to strike. In these "*fiches*" one accusation was continually repeated, like a refrain: "His children are brought up in a religious school; he is a clerical, goes to mass. . . ." The freemasonry which makes our ministers totter and puts itself forward as the regular guardian of the Republic wishes to succeed in uprooting religious beliefs; and a professor of the University, a distinguished historian, M. Aulard, who has written for the socialistic newspapers as the champion of the Combes ministry, does not in any way dissemble the fact that the systematic "dechristianization" of the country is the object to be pursued in regulating anew the rule of the Church.

In the presence of such threats coming from men who proclaim themselves "the true republicans," a movement is showing itself in the clergy and among militant Catholics. The reasonable and prudent ones still preach calm and moderation and wish to remain faithful to the instructions of Leo XIII. But some exalted spirits regard those instructions as out of date; they hold that the hour for arrangements has passed, and demand henceforth a Catholic party which with banners unfurled and surrounded by its clergy shall throw itself into the fray. Now the constitution of a purely Catholic party is impossible, since a party must take up in its programme a number of purely administrative or financial points on which religion gives no special light. The Catholics ought, therefore, to rally to some one of the existing programmes, and history as well as their present tendency shows that they would lean toward the old parties of monarchical reaction, which could create embarrassment and make trouble if unbridled religious passions came to lend them new strength.

One can readily see how confused is the present situation in France and how grave the crisis. This crisis will certainly have

far-reaching consequences. The violence of the passions now unchained and the schisms that they have provoked, for instance, in the republican party, in which the moderates are completely separated from the extremists, will all weigh for long on our politics. What the immediate solutions of this problem will be in reference to contingent circumstances and different states of mind, I cannot determine. Such a study would lead to the rearing of hypotheses. I promised at the beginning of this article to set forth only facts, and I hope that I have helped the readers of this review to understand the true character and the scope of the politico-religious crisis that France is passing through at this moment.



# THE CHURCH AND SOCIAL PROBLEMS

WASHINGTON GLADDEN

**I**T has never been possible for the Christian church to rid itself of some feeling of responsibility for the solution of problems of the social order. The teaching of Jesus respecting the kingdom of Heaven could hardly be ignored; and although in many of His parables and maxims the bases of that kingdom are laid in the loyal love of the individual, the entire teaching finds its objective in a right relation of man to man in society. The Lord's Prayer may be supposed to summarize what is essential in Christian teaching, and it places the entire emphasis upon life in this world. The other world is referred to only as a model after which the order of this world may be fashioned: "Thy Kingdom come, Thy will be done on earth as it is heaven." It is plain that the main interest of Christianity must be in the social order; and while it expects its growth to be rooted in the individual will, it looks for its fruitage in the life of society. Any careful perusal of the Sermon on the Mount will make this plain.

We are not surprised, therefore, to find that the church, in the early centuries, began to deal vigorously with social problems. Dr. Uhlhorn, in his two monumental volumes,<sup>1</sup> has shown how heroically the Christian church grappled from the beginning with poverty, with luxury, with slavery, with the evils that assail and destroy the family, and with the gladiatorial games by which the old Roman world was debauched and imbruted. The Christians of the third and fourth centuries would have been somewhat astonished if any one had told them that they must preach "the simple gospel,"—whatever that may be—and give no attention to social questions. The strongest evidence we can present to-day of the truth of Christianity is in such testimonies as those of Mr. Lecky, when he says that to Christianity more than to any other influence must be accredited the overthrow of slavery and of the gladiatorial games. During the Middle Ages most of what was accomplished for social amelioration was through the agency of the church; the

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<sup>1</sup> "Christian Charity in the Ancient Church," and "The Conflict of Christianity with Heathenism."

great monastic orders founded hospitals, cared for the poor, and mitigated the hardships of serfdom; such developments of monasticism as those which afterward arose under the leadership of St. Vincent de Paul were of great importance as direct and efficient ministries of the church to social needs.

It has doubtless been true in all the ages that charity has been seriously perverted by making it largely a means of grace to the giver: the good of the recipient has often been forgotten by the bestower in the thought of merit to be acquired; the lazy largess flung to the beggar would be counted to the giver for righteousness, and it mattered not what might become of the beggar. Under the operation of this egoistic motive a world of harm has been done, no doubt, both to givers and to receivers; but the best of the virtues is open to perversion.

It is enough to say that while the church has by no means fully comprehended the nature of its ministry to social needs, and has often made great mistakes both in its social teaching and in its administration of charity, it has never quite forgotten that a part of its duty is with the establishment and maintenance in this world of right social relations.

The origin, upon this continent, of social institutions was in a theocracy, which blended church and state. The relation of the church to such social problems as existed was vital and controlling; the care of the poor, the repression of vice, the provision of education, were all regulated by the local commune, whose functions were both civil and religious. Such social problems as those confronting us did not exist, and it was a long time before they made their appearance. When, at last, the Puritan church was disestablished, and a clear separation was made between civil and religious functions, several of the more important social needs for which the church had formerly been held responsible, such as the education of the young and the care of the sick and the unfortunate and the poor, fell into the hands of the civil authorities. The reason for this was that the civil authorities were supposed to be so largely under the control of Christian principles that these interests could be safely entrusted to them. The church had created an agency which, it was believed, was adequate to the performance



of this part of its task. Consequently, the church has been inclined to withdraw its hand from many interests for which it might have been held responsible. There has thus been a degree of detachment of the church from certain social problems which has not been good for the church, nor for the interests thus abandoned.

It is not, of course, true that the American churches have had no interest in social problems; it will appear in the course of this discussion that they have taken a deep interest in some of them; it is only true that their relation to certain large affairs has been less close than could have been desired.

Public education, for example, is one of the most fundamental social needs; it was once under the entire control of the church, but of recent years the separation between the church and the public schools has been nearly complete. It is not, perhaps, to be regretted that religious teaching has been abandoned by the public schools; such teaching as could be supplied by the secular authorities would certainly be perfunctory and might be very defective. The state could not equip its teachers to give adequate religious instruction, even if it could reach a conclusion, satisfactory to all concerned, as to what kind of religion it wanted to teach.

That a certain amount of elementary moral instruction might be given could be more successfully maintained; and the church has possibly failed of its duty in neglecting to insist upon this. But whether such technical instruction in practical ethics be practicable or not, one thing is certain—that the chief business of education, whether public or private, is the development of character; and that the public schools ought to be held to the highest standards in this part of their work. For this the church is directly responsible. It is bound to see to it that everything is done which can be done to surround the children in the public schools with the most salutary and inspiring influences; to hold up before them the highest ideals; to fill them with the love of all things pure and true and honorable. In the greater part of the country the *morale* of the public schools has been high, owing to the intelligent devotion of the teachers, but baneful influences are at work in many quarters through which the governing boards, chosen by the people, are

dragged into politics and made the agencies of greed and partizanship. That bad politics in the school boards will inevitably taint the teaching force and fill the schoolrooms with men and women of low ideals and dubious characters needs no argument. It is the business of the Christian church to prevent this. There need be no wrangling about the teaching of religion or even of theoretical morality in the schools; but the churches could unite in a resolute purpose to keep clean, upright, honorable men in control of the public schools. They have a right to demand this, a right which nobody will call in question. The pulpit ought to speak about it, clearly and frequently; it is a vital interest with which the church should charge itself; there is no other social problem with which it ought to be more concerned nor to which its power could be applied with greater effect.

The temperance question has enlisted the interest of the American church in a large degree. The first temperance reformers in this country were closely connected with the churches; the Thirteen Sermons of Dr. Lyman Beecher were used with powerful effect; the moral crusade against drunkenness in the first half of the century was largely of religious inspiration, and in later years the two most vigorous movements in this field—that of the Women's Christian Temperance Union and that of the Anti-Saloon League—have been inaugurated and directed by the churches.

This is unquestionably a social problem in which the church has a right to be interested. The misery and destruction wrought by the misuse of alcoholic liquors is appalling; the church, whose business it is to seek and save the lost, cannot ignore such a portentous evil. And the church has been right in its judgment that this is a social evil, and must be met by a vigorous use of social forces, including such improvements in the environment as can be made by law. Something can be done, much can be done, by lessening the amount of temptation, by restricting the sale of liquor, by putting the business under the ban of the law. But there are many localities in which there cannot, at present, be any complete and effectual suppression of the traffic in intoxicating liquors, and in these localities the need of efficient work in the restraint of drunkenness is greatest. It would seem that the recent tendency of tem-



perance workers in the church to put the entire stress of their endeavor upon the suppression of the saloon, is not an enlightened policy. The moral forces are still of some account, and it would be becoming in the church to give them a little more recognition. It is especially needful that in waging this campaign the church should comprehend the value of the social forces. The causes of drunkenness are, indeed, deeper than most of our temperance workers realize, and the radical cure will involve something far more drastic than any temperance legislation yet proposed; but such temporary and partial relief as we may now expect is much more surely gained in many localities by providing some attractive substitute for the saloon than by making futile war upon it. A great deal has been done in England along this line, in the establishment of coffee-houses and friendly inns, where shelter and warmth and society may be found free from the temptations of drink. In this country very little of this kind of work has been attempted, and the churches are grossly derelict in their neglect of this hopeful instrumentality. It may be that in some communities and localities measures of legal restriction or repression can be made more effective than counter attractions in reducing the amount of drunkenness; but there are many localities where it is simply impossible that such measures should be enforced; and the church is doing far less than it ought to do in the occupation of these regions with such agencies as I have suggested.

To one great social problem the American church has given much attention. Fifty years ago the slavery question was a burning question in the churches of the North. It has sometimes been charged that the Northern churches were lukewarm in their opposition to slavery; but while this was true of some of them, the great body of Christian sentiment at the North was opposed to slavery. The three thousand ministerial signatures from New England to the remonstrance against the repeal of the Missouri Compromise is a sufficient indication of opinion in that quarter. It was the moderate but firm attitude of the Northern churches on this subject which held the nation to the line of policy on which Mr. Lincoln was finally elected to the Presidency.

It must be admitted, however, that the opinion of the Southern

church was equally unanimous in affirming that slavery was a divine institution, which it was the sacred duty of the South to maintain and spread abroad.

The fortunes of war gave judgment in favor of the Northern theory, and there is today a practical acquiescence in the righteousness of that verdict. It may, perhaps, be assumed that the opinion of the American church is now nearly unanimous respecting the wrongfulness of the system of African slavery.

There still remains, however, a great social problem in regard to which the American church is by no means unanimous. What rights, liberties, opportunities, incentives to manhood are to be enjoyed by the emancipated negroes? This is a question upon which there is still much difference of opinion. Is there no way of reaching some reasonable agreement on this great matter? Is the Christian ethics obscure in its treatment of human relations? Is it not possible to draw from the teachings of Christ some simple, elementary, decisive principles governing our duties to our fellow-men upon which we can stand together?

It ought to be clear to all reasonable Christian men that such a conflict of opinion about essential morality as that which divided the churches of the North and the churches of the South before the war is a scandal and reproach to the Christian church. It may be granted that these opinions were honestly held on both sides, but that does not lessen the scandal; it aggravates it. If Christian morality is so indefinite that honest men, with the same New Testament in their hands, can hold opinions so diametrically opposite on a question which is as nearly fundamental to conduct as any question can be, then Christian morality is of no particular value for the guidance of reasonable men. Such a conflict, over such a question, does more to weaken the appeal of the church to men—more to lessen the respect of men for the church—than any amount of anti-Christian argument. It is evidently of the greatest moment that churches at the North and churches at the South should get together upon this burning social problem: What is the Christian way of treating the American negro? It is not probable that the churches of either section are blameless in their conduct respecting this matter; but the question is one that vitally



affects both the church and the social order, and some serious effort ought to be made to reach a reasonable agreement upon its merits.

That African slavery is wrong appears, as I have said, to be generally admitted. What has the American church of the twentieth century to say respecting the existence of white slavery? The question may seem to involve an extravagant inference, but I am disposed to press it. For the condition of the wage-laborer who stands alone confronting the enormous aggregations of capital now controlling nearly all our industries, and who is compelled to make his own bargains with such employers for the wages on which he subsists, is not very different from that of the slave.

Herbert Spencer is far enough from admitting any socialistic contention, yet he says: "The wage-earning factory-hand does, indeed, exemplify entirely free labor, in so far that, making contracts at will, and able to break them after short notice, he is free to engage with whomsoever he pleases and where he pleases. But this liberty amounts in practice to little more than the ability to exchange one slavery for another; since, fit only for his particular occupation, he has rarely an opportunity of doing anything more than decide in what mill he will pass the greater part of his dreary days. The coercion of circumstances often bears more hardily on him than the coercion of a master does on one in bondage."<sup>2</sup>

It is entirely clear, history establishes the conclusion to which economic theory easily comes, that the free laborer, standing in the presence of vast masses of consolidated capital, and trusting in the working of the law of supply and demand, is impoverished and crushed. There appears to be but one way of salvation open to him. He must combine with his fellow-laborers, and collective bargaining must be substituted for individual bargaining. That is the only way in which he can be delivered from penury and bondage.

Of course this remedy may involve some very unpleasant experiences. The laboring men thus uniting are likely to misuse their power. Most people who get power in their hands misuse it

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<sup>2</sup> "Principles of Sociology," III., 525.

more or less. Corporations abuse their power in many nefarious ways. Labor unions are often guilty of grave abuses of power. They make extravagant demands and vexatious rules; they resort to violence. All this is reprehensible and must be resisted and punished. But no system is to be denounced or forbidden because of its abuses. It must be purged of its abuses; it must be held firmly to its purposes. The purposes of labor organization are righteous purposes. It is the only method by which labor, under the present industrial system, can save itself from degradation and slavery. The laboring classes have a right to the hearty, cordial, outspoken sympathy and support of the Christian church in their endeavor to do this. Their unreason and spite and violence need not be approved, but their central purpose ought to be confirmed and applauded. If the Christian church does not approve of slavery she ought to say so, in terms which cannot be misunderstood.

Some of the churches have thus clearly expressed themselves. The Episcopalians and the Congregationalists, in their last general assemblies, put themselves clearly on record as affirming the necessity, as well as the justice, of labor organization. Other churches may have done this; all ought to do it. It is a matter of the gravest importance. There is involved in it the right to life and liberty of the working classes. On that question the Christian church cannot afford to hold an ambiguous position. So long as the church hesitates to utter a clear voice on this central issue, she is powerless to rebuke violence or misconduct on the part of the unions. What do they care for the disapproval of a church which does not recognize their right of self-preservation? And if her censures do not deter them much less will her invitations attract them.

The fact must be admitted that the wage-workers of this country are largely outside the churches. This breach has been steadily widening; conditions are worse now than they were ten years ago. One of the strongest reasons for this is the fact that the churches have not recognized so clearly as they ought the equities of this conflict. It is a grave failure. They ought never to have suffered such an alienation to occur between themselves and the people who constitute the very bone and sinew of our civilization.



How can the Christian church clear herself of the charge that the very people who heard her Lord gladly turn in multitudes from her threshold? There is need of sober thought and deep humiliation, that this most grave social problem may find a solution which shall bring honor to the church and peace to society.

Most portentous of all the social problems is the problem of poverty. It is an appalling statement which we find in recent discussions—that fully ten millions of the people of the United States, or more than one-eighth of the entire population, are in poverty. This does not mean that they are paupers, dependent on charity; it means simply this:

“Those who are in poverty may be able to get a bare sustenance, but they are not able to obtain *those necessities which will permit them to maintain a state of physical efficiency*. They are the large class in any industrial nation who are on the verge of distress. Only the most miserable of them are starving or dependent on charity, but all of them are receiving too little of the common necessities to keep themselves at their best physically. It would be difficult to over-estimate the importance of sufficient food, adequate clothing and a sanitary home to those men, women and children who must depend at all times upon their labor-power and their physical efficiency to produce an income sufficient to maintain themselves in working order. There is a fundamental here. If they must work to live they must have those necessities which will enable them to work.”<sup>3</sup>

How large a proportion of our population come within this category it is impossible to say. There are no American statistics which make the matter clear. The very thorough and scientific investigation by Mr. Charles Booth into the conditions of the London poor showed that at least 30 per cent. of the people of that great city were in the condition described above. How much better off are we in our American cities? Definite knowledge we do not possess. We may hope that our conditions are far better, but we may still be sure that they are bad enough. “During the year 1903 over 136,000 persons in Boston were aided by the pub-

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<sup>3</sup> “Poverty,” by Robert Hunter, pp. 5, 6.

lic authorities alone, or, estimating the present population at 606,600, more than 20 per cent. of the population."<sup>4</sup> Other statistics respecting New York City indicate a similar proportion. And the fact that every tenth person who dies in New York is buried by the public authorities in the Potter's Field is a convincing proof of the degree of destitution in that city. There have been recent years in which more than one-tenth of the population of the thrifty city in which I live received aid from the poor funds. It is probable that if the facts were known, the optimistic ideas of many of our enthusiastic Americans respecting the universal welfare of our people would suffer chastening.

The poor we have always with us. Whether their relative number is increasing or not we ought to know, but we do not. There are enough of them to furnish a most serious social problem. What is the American church doing toward the solution of this problem? It must be confessed that it is doing very little. Some churches take care of their own poor who are communicants; many, it is to be feared, do not even so much as this, but leave their own members to be cared for by public and private charities.

Some churches, through missions and visitors, reach a certain number of poor families and dispense relief, more or less wisely, to these needy ones.

Many hospitals, orphanages, day nurseries, and other institutions for the care of the poor have been erected and endowed by the churches and are under their management. The church shares with the state the work of institutional relief for the poor.

What is technically called outdoor relief, the ministration to the poor in their homes, is largely in the hands of voluntary organizations of citizens. In this work of the Associated Charities, as in all the other philanthropic work of the community, the churches efficiently assist, through their members; much the largest part of all this work is done by members of churches, but the churches, as organizations, are not generally known in it.

What, now, is to be desired, in the attitude of the church toward the problem of poverty?

The voluntary institutional work for which the churches are

<sup>4</sup> "Poverty," by Robert Hunter, pp. 5, 6.



largely responsible is generally well done. But the public institutions for the care of the dependent and defective classes deserve more attention from the churches. This is work that really belongs to them; if they surrender it to the state they ought to see that it is performed in the right way. If they do not assume, as churches, any dictation as to the management of such institutions, it is only reasonable to suppose that they will have a keen interest in them; and will carefully guard the welfare of these poorest of the poor. As the representatives of Jesus Christ in the world they can hardly do less than this. A closer and more sympathetic relation between the churches and the public philanthropic institutions is greatly to be desired.

It is in the work of outdoor relief, however, that the church should find its great opportunity. The work of caring for the poor in their homes ought to be done by the churches. For this purpose they need, of course, to be associated, and to this end they should ally themselves with the Associated Charities and work under the direction of this organization. The methods of the Associated Charities are right methods, and the churches, which are not always so wise as they ought to be in this work, need to learn these methods. The interests of character are made supreme in the work of the Associated Charities; the constant aim is to give aid in such a way as to strengthen and not undermine the manhood of those receiving it. The churches ought to approve this aim, and co-operate in securing it.

In a few cities attempts have been made to bring the churches together, after this manner, under the lead of the Associated Charities, so that the Associated Charities shall be, in effect, the Associated Churches,—so that the office of the society shall be the clearing-house of the churches engaged in charitable work, and their methods shall be unified and guided toward the best results. For the accomplishment there would be necessary, on the part of many churches, a considerable change in their conceptions of their business in the world, and a revolution in their sentimental and slipshod methods of dispensing charity. It would mean the acceptance by them of tasks which had no direct tendency to swell their membership-rolls or increase their revenues, but which would

involve the ungrudging expenditure of much time and some money. But it would certainly be a more recognizable imitation of Christ than much of the work in which they are now employed, and it would give them an access to the poorest classes and an influence over them which they ought to covet.

The relief of destitution is important, and the church may well have a larger share in it than she has lately sought. But, after all, the problem of poverty will never be solved by these measures of relief, no matter how wise they may be. The immediate causes of poverty are not far to seek, and the church must find them and attack them with a consecrated resolution. I know of no better summary of the things which must be done to prevent poverty than this compendious statement of necessary reforms which I quote from a book that every philanthropic American ought to read:

"They would make all tenements and factories sanitary; they would regulate the hours of work, especially for women and children; they would regulate and thoroughly supervise dangerous trades; they would institute all necessary measures to stamp out unnecessary disease and to prevent unnecessary death; they would prohibit entirely child labor; they would institute all necessary educational and recreational institutions, to replace the social and educational losses of the home and the domestic workshop; they would perfect, as far as possible, legislation and institutions to make industry pay the necessary and legitimate cost of producing and maintaining efficient laborers; they would institute, on the lines of foreign experience, measures to compensate labor for enforced seasons of idleness due to sickness, old age, lack of work or other causes beyond the control of the workman; they would prevent parasitism on the part of either the consumer or the producer, and charge up the full costs of labor to the beneficiary, instead of compelling the worker at certain times to enforce his demand for maintenance through the tax rate and by becoming a pauper; they would restrict the power of employer and of ship-owner to stimulate for purely selfish ends an excessive immigration, and in this way to beat down wages and to increase unemployment."<sup>5</sup>

<sup>5</sup> "Poverty," by Robert Hunter, pp. 338-339.



A pregnant program, verily! There may be items in it at which the judicious would hesitate; but it points out some of the most efficient causes of poverty, and some of the indispensable remedies. It is idle to think of meeting the demands of humanity by any imaginable system of relief, while these mills of cruelty and greed are grinding out their fearful grist of destitution and helplessness.

More people are killed in a year in this country by railway accidents than were killed on both sides in the three years of the Boer War. Thousands of families thus bereaved are reduced to poverty; and a large share of these accidents are preventable.

Tuberculosis slays every year 150,000 people in the United States, and its annual cost to the nation is estimated at \$330,000,000. The amount of poverty caused by this terrible destruction of human life is vast, and a very large part of this is preventable.

The ruin of health in unsanitary tenements is another great cause of poverty; and the community has the power to prevent this evil.

It is the business of the church to educate the community upon all these subjects. She has no more urgent business. She must not stand and look on while such tremendous forces are at work destroying the bodies and the souls of men. She is here in the world to save men, and she needs a larger understanding of what that means. She must learn to read her commission in the light of the twentieth century and in the terms of modern social life. Where else shall we look for an authoritative and commanding interpretation of the ethics of the new industry and of the existing social order?

If the church cannot do this work she has no business in this world. If she unfits herself for it by taking bribes of tainted money she ought to perish with her money, and she will.

## FACIAL EXPRESSION

RUFUS MANN

THE average human face is the most interesting and remarkable phenomenon in the whole range of natural history, and to be rightly understood should be regarded not only with the sympathy which comes from the sense of brotherhood, but with the knowledge derived from scientific inquiry. The loss of the hairy covering, which led to the custom of clothing the body and leaving only the face exposed, has given to it an importance altogether out of proportion to its size.

In general, the face includes less than one-thirtieth of the surface of the body. In this limited space are assembled the organs of the most important of the five senses, besides a set of muscles having the capacity to express the manifold desires of the heart as well as a vast range of purely intellectual activities. In the lower animals, on the contrary, it is asserted that there is no expression, but what may be referred directly to merely animal instincts.

This exaggerated emphasis of the human countenance may easily be tested by comparing a clothed human being with a nude body; in the latter the face being less isolated is also far less dominant, and although the unity of the physical organization is thus better seen and understood, the intellectual qualities which depend upon the countenance for their expression are not accentuated to the same degree. The effect of this isolation has perhaps been favorable to intellectual and facial beauty, but it is reasonable to suppose that the beauty of the body is not as great as it might otherwise have been.

In the human face may be traced something of the history of the animal series that leads up to man, but it reflects more particularly the record of the mental struggle which has brought him to his present level. The physical properties of the face, their form and essential association, were all, or nearly all, given to man at the outset of his career. His chief task had been to refine them.

A head and face have practically begun to exist when the organs of the several senses are grouped about the mouth. The



creature thus provided with the means of communication begins in a methodical way to use these organs of sensibility not only to receive impressions from without, but to give signs of its own internal state. It is this last-named task that has been principally instrumental in giving to the face the character it bears, and in making it the effective agent of communication with the outer world. Thus we see expression is the first object of the face, and we naturally expect to find expression growing with each step of advancement.

The origin of all the elements of the human head cannot be traced; it is almost certain, however, that they have been developed in the life above the fishes. Among the fishes the head is not yet distinctly separated from the rest of the body; there is no neck, and in the very highest forms the creature must move the whole body in order to obtain a new field of vision. The head of the fish is imperfect in other ways: to it are attached the breathing organs in the shape of gills, which require a complicated system of machinery to aid their functions; the instruments of sight and smell are generally pretty well elaborated, but the hearing is in the keeping of a very rude machinery which does its work inadequately. The voice, which hereafter is a part of the head machinery, is indistinct and quite inarticulate.

The next step in advance is gained when the fishes pass into the reptiles; here we find something like a neck and a head; the ennobled part of the body is more distinctly separated from that which serves the lower functions. In the reptiles the head is fairly finished. Every essential feature, except perhaps the outer ear, that exists in the higher mammalia is at least suggested, and there is nothing to be eliminated in the further advance. Nevertheless, man sees in the reptile, the lowest creature of the series that contains the same bodily elements with himself, the type of all possible degradation and views it with instinctive abhorrence.

From the reptiles, advance to the higher forms is made on two distinct lines; on the one we are led to the birds, on the other to the mammals. Though closely akin in structure, there is a wide spiritual gap separating the reptiles and birds. We pass from dull and senseless things to creatures which are the embodi-

ment of emotional activity. The mental activity of birds finds expression, not only in their marvelous voices, but for the first time the face becomes the instrument of a considerable range of expression. Although the reptiles may convey some idea of rage by their menacing jaws and by their movements, the face is so rigid that there is little to choose between the expression of the animal when alive and when dead, whereas in the bird the change is so great that it may be pathetic.

The first clear premonition of the human face is found among the monkeys. We see here this part beginning to adjust itself, as it were, for a higher destiny. The jaws become shorter, the mouth diminishes in size, the nose, which hitherto has been flat, in some species begins to assume a distinct human outline; the eyes are closer together and the eyebrows are somewhat better defined; the hair, although still covering the face, grows so as to separate it more sharply from the head; but above all there comes a larger development of the facial muscles and a play of countenance greater than that of the lower animals. It may indeed be asserted that the faces of monkeys are more expressive than those of the lower races of men, for the reason that, having no articulate speech, they are compelled to signify by grimace much that human beings convey by language. Although the vocabulary of the inferior races may be small, it is nevertheless sufficient for the expression of the limited range of their ideas and emotions, and no longer requires grimace as an aid. According to this theory, the first result of speech would therefore be to limit the mobility of the face, but with the higher races the scope of ideas and emotions is such that the voice, a most important organ of expression, cannot meet the demands of the mind, and in consequence the face becomes obedient to the soul.

So far as man is concerned, the principal changes that mark his elevation lie in matters of proportion; among the most important of these is the manner in which the face is thrown more nearly into a vertical plane, thereby presenting a striking contrast to the old animal countenance. The lifting of the forehead and the accentuation of the chin have perhaps more than any other modification given to the human face its erect and commanding appear-



ance. The distance from the eyes to the ears has also steadily increased and the height of the countenance compared with the width become greater; this particular modification appears in all races in the ascending grade of culture. The most remarkable transformation observed in passing from the anthropoids to man is found in the hairy covering of the face; the localization of this hair, although a characteristic feature of man, is indicated in the lower forms; with the monkeys, for instance, the lower part of the face of the male is in certain species covered by a beard. The change in the hairy covering of man is not so much a matter of diminution as of distribution. If the nine inches of growth which is said to take place each year in the hair of the head and beard were spread over the entire body, we should find it covered about as thickly as that of a monkey. With the loss of the hair there has come about that peculiar sensitiveness of the skin which is manifested in blushing. This phenomenon, together with the sentiments which give rise to it, is confined to man.

The changes which have taken place since the face came under the control of the mind and the modifications going on at the present time are ascribed to sexual and social selection. To this social selection we owe the gain in the progressive expressiveness of the countenance. It is very certain that the infantile and adult face of most civilized people are much further removed from each other than is the case with savages. Through education and inheritance the difference even between adults is constantly increasing. Since the tendency of civilization is to enormously diversify the old savage uniformity of expression, we can fairly expect that further culture will bring about still greater variations among individuals; for the face expresses not only the habitual emotion of the individual, but something of that of the race. Hence the finer gradations of proportion and the greater flexibility observed in the faces of the higher grades of men. The gentleman's cast of countenance is wide apart from that of the peasant, the peasant's from the mechanic's, the latter from the seaman's. The greater expressiveness of the faces of the aristocratic, or socially selected class, is undoubtedly the result of long and subtle training, brought about by the intellectual activities and

the sympathies. Indeed the power of the face to awaken sympathy is of the greatest importance, for success or failure in life may depend upon its capacity to arouse interest and to manifest the emotions which find in the face the seat of expression.

Among civilized peoples there is much greater contrast between the faces of men and women than among savages. This may largely be due to intellectual choice, each sex preferring its opposite qualities. It may also in part be ascribed to the actual differences in the occupations and mental habits of the two sexes; the growing tendency towards similarity of pursuit may result in arresting this differentiation which is so marked a feature of advanced civilization. It may be assumed that after man passed his lowest stage, the most beautiful women were selected as wives by the most powerful or otherwise gifted men, and that the marriages were on the whole advantageous to the growth of physical beauty. With man's advance sexual selection has been based to a greater extent upon intellectual qualities, and in consequence beauty of expression has been gradually acquired.

The revelations which lie in the keeping of this small part of the body have led men to regard each other's faces with a degree of curiosity and interest unknown to other creatures. They first seek here the knowledge which is of paramount importance in all human contacts, namely, how far a man may look for trust and good faith on the part of those with whom he proposes to deal, and how far he can hope for the sympathy and good-will of his fellow-beings. In the search for assurance of this kind, men from the most remote times have studied the face as the key to character. The significance of the features have given rise to many fantastic theories, and some confident observers have gone so far as to claim that physiognomy is but an ingenious and subtle science of human nature. The list of those who even in ancient times wrote upon physiognomy includes some most illustrious names, among them those of Aristotle and Pliny. In modern times Giobattista Della Porta was the first to approach the subject in the modern spirit of inquiry; at least he had got so far as to oppose the belief in astrological physiognomy which was current in the 17th century and to demonstrate that a man's features were due to



his temperament and not to the stars. It is, however, to Lavater, the Swiss pastor and poet, that we owe some of the most acute observations that have been made with reference to the human countenance. Although ignorant of anatomy or natural history, his rare insight into character, aided by poetic intuition, enabled him to arrive instinctively at conclusions which eventually were confirmed by men of research. But Lavater did not neglect altogether the scientific methods of investigation. He drew with nice art the faces of many men. These portraits furnish some five or six hundred types which he used to illustrate what he called his *Physiognomical Bible*, a valuable repository of information and suggestion.

Notwithstanding that Lavater has been called the apostle of scientific physiognomy, there is a vast gap between his happy guesses and the writings of such men as Piderit, Gratiolet, Sir Charles Bell and Darwin. The last of these, especially in making comparisons with our ape-like ancestors, has thrown much light upon the subject of facial expression and has furnished a solid foundation for ethnic deductions.

It is generally conceded that the part of the face which most distinctly indicates character is that which extends from the bone of the nose to the middle of the forehead, including the space between the two temples. The part which comprises the cheek bones and the lower part of the nose has only accessory significance. The face which has prominent jaws and a receding forehead is called *prognathos* and is represented by the lower races — the Negroes, Australians and Papuans. Where these characteristics are absent the face is said to be *orthognathos* after the manner common among the higher types of men. Furthermore, our conception of beauty is derived from this type; and, instead of being a matter of illogical caprice, is really founded upon the laws of human advance.

In representing the face many artists are guided to a certain extent by definite rules, but the shades of proportion are too subtle and individual to be translated by rule. The measurements of the human skull which gave rise to what is known as Campers' "facial angle," though important in determining the rank of the

face in the series, is far from being an infallible guide in estimating individual power.

The forehead is generally regarded as the most faithful interpreter of the intelligence, and when wide and moderately high is considered beautiful as well as characteristic of the higher races. In this instance our conception of the beautiful is again in accordance with ethnical advance. The low and receding forehead is associated with inferior intelligence. Leonardo da Vinci recognized three types of brow: the flat, the concave, and the convex. The first of these, according to Cordona, indicates a good disposition; the possession of the second "is no great honor"; while the third, when not brazen, is thought to be the sign of harmony of faculties and taste for music. In Mantegazza's opinion the forehead is elongated in proportion as the mind is deficient in energy and elasticity. A brow which is narrow, short and squat indicates a concentrated, firm and solid character. Absolute perpendicularity from the hair to the eyebrows is a sign of complete lack of intelligence.

According to Lavater, "wherever genius may be, its character and nature will always be best rendered by the eye, in the fire which animates it, but above all in the drawing of the upper eyelid. I do not consider," he says, "I have looked at a man until I have noticed this contour. If this single feature is positive and decisive, all the rest matters very little to me."

It is noteworthy that in the accounts of the personal appearance of men of genius, however much they may lack other physical attractions, their eyes are described as being exceedingly brilliant. Since the eye is one of the most, if not the most, expressive feature of the face, the element of size is of considerable importance; but many other things enter into the computation; namely, the form and color and the proximity and relation of the eyebrows and lashes. Brilliancy also is a large element in contributing to the expressiveness of the eye. This depends upon the varying convexity of the cornea and on the secretion of the eye. Blue eyes are supposed to express intellect and gentleness; black eyes passion and sensibility, and the grey eye fidelity and firmness. Arthur Helps is persuaded that grey-eyed people are the true saviours of



the world. Almond-shaped eyes are so highly appreciated in the East that it is customary to simulate it by a touch of the sulphur of antimony at the inner extremity of the opening of the eye. In contrast to this characteristic of the Mongolians, the outer angle of the eye is with some individuals of our race lower than the inner. In the case of the Empress Eugenie this peculiarity constituted one of her greatest claims to beauty. In America this form of the eye appears to be more common than in Europe.

Some physiognomists attach great importance to the eyebrows as a criterion of character, and this for the reason that the inner extremities of the eyebrows are, with the exception of the mouth, the most movable parts of the face. Here the muscles are concentrated and upon the changes which they undergo expression largely depends. Moderately thick, well-arched, well-defined eyebrows are thought to be beautiful. When very full, although admired by the Arabs, they give an expression bordering on ferocity. On the other hand, Lavater asserted that he had never seen "a profound thinker or a firm and judicious man with thin eyebrows situated very high and dividing the forehead into equal parts. Thin eyebrows," he says, "are a sign of apathy and flabbiness." Again, "the nearer they approach the eyes the more serious, profound and social is the character." Long eyelashes are universally esteemed a mark of beauty.

A nose which in any way suggests our ape-like ancestors, whether snub, flattened or abnormally small, is deemed ugly. Generally speaking, the long nose belongs to the people of Europe, whereas the Negroes and Mongolians have short noses. With the Esquimaux the nose is said to be in many cases so flat that a ruler might be placed so as to rest upon both cheeks without touching it. In man the muscles of the nose have little flexibility except about the nostrils, which visibly dilate and contract under the influence of passion. Mantegazza has remarked that among civilized people the nose is nearly always deflected towards the right, which he attributes to the custom of wiping the nose with the right hand. Leonardo da Vinci discovered that there were over ten different varieties of nose, seen in profile, and eleven when looked at in front. Charles Blanc considered the nose the most

characteristic feature of the face, and recommended ladies to regulate the style of their dress with reference to its shape; and Lavater went so far as to assert that a beautiful nose was worth more than a kingdom, that it is never associated with an ugly face.

Anatomists remind us that the lips are of all the features the most susceptible of action, and therefore are the most direct interpreters of the soul. The upper lip indicates the inclinations and the appetites; pride and passion contract it, cunning attenuates it, debauchery enervates and debases it. The mouth which in the higher races conforms to the idea of beauty is of moderate size, the lips slightly curved and rather thin when compared with the fleshy, sensuous lips of the prognathos face. When the mouth is too far from the nose the elongation of the upper lip is unpleasantly suggestive of the anthropoid apes. Lavater distinguishes three varieties of mouth, that in which the upper lip projects over the lower; this being in his opinion a sign of goodness of heart and scrupulousness; when the two lips advance equally we have what is known as a "loyal mouth"; when the lower lip projects beyond the upper it is a sign of irritability as well as of firmness of character.

The receding and insufficiently accentuated chin is characteristic of the lower types of men and is regarded as a sign of weakness and inferiority. On the other hand, the prominent chin is a mark of the dominant races and has come to be accepted as a sign of strength and firmness of mind, not only because it is one of the features which distinguish man from the apes, but also because it is observed that almost instinctively the chin is pushed forward when a determination is formed or preparation made for a struggle. Likewise when men are called upon to perform any difficult act requiring fixed attention, they involuntarily close the mouth and take a deep breath, presumably in order to avoid the interruption of breathing; this is equally true when men shoot at a target or women thread a needle.

So far as the ear is concerned, the artist and the ethnologist agree in their ideal of excellence. In man the ears have lost their acuminate form and their mobility, although the muscles designed to move them remain among the useless things that he has



inherited from the life below him. A beautiful ear should be small, with well-drawn convolutions. It should lie close along the skull and should have a rounded and distinct lobe.

The canons of beauty require that the teeth should not be too prominent, too long, too thick, nor too wide, irregular, yellow or far apart, nor should the gums be visible to any extent when the mouth is open. The gradual decrease in the size of the mouth and the shortening of the jaw have led to the partial abortion of the wisdom-teeth. There have been instances in America where they have not pierced the gum at all.

Although the hair is one of the bodily accessories with which we could most easily dispense, yet it may in itself be very beautiful, and according to its arrangement it may accentuate or detract from the charm of almost every face. This is particularly the case with women. While the essential characteristics of the feminine nature have remained unchanged, the different modes of dressing the hair have, with the changes of fashion, so altered their general appearance as to convey at one time and another such opposite impressions as those of excessive meekness and imperiousness. The women of the old illustrated annuals, with hair parted in the middle and hanging in loops over the ears, all have the air of patient Griseldas, while another generation, equally docile, perhaps, by arranging the hair high on the head, look as determined as the delegates to a Woman's Rights Convention.

The increasing baldness of men might seem to indicate that this natural covering of the head was destined ultimately to disappear. Savages show no such tendency to lose their hair as the men of our own race, and therefore the loss cannot be regarded as the result of either natural or sexual selection. The German as a matter of course finds a germ at the root of the hair; but if this were the only cause of baldness, women, in all probability, would be equally affected by it. In Italy precocious baldness gives exemption from military service.

The constant presence of dark or light hair and eyes among a people is supposed by ethnologists to represent purity of race; but this speculation has not been sufficiently verified to give it much weight. On the other hand, there seems to be no doubt that the

number of people with dark hair is constantly increasing, especially in cities and towns. Charnock asserts that this change has been going on for the last two thousand years. In the opinion of some writers it is due to the larger amount of animal food consumed in towns; others explain it on the theory that hygienic conditions being less favorable in a metropolis than in the country, the blond type, having less resistance to disease than the brown, disappears. Again, since the towns are more subject than the rural districts to the influx of immigrants, it is believed that in the racial mixture that takes place, the dark races prove more reproductive.

It is not unreasonable to suppose that the pleasure which the trained observer derives from facial beauty is, however unconsciously, involved to a certain extent, with his knowledge of the fact that symmetry of feature as well as charm of expression are indicative of the advance of the race; for wealth of expression depends largely upon the strength of the emotions, upon the sensibility and sympathetic nature of people. Expression is a most important accessory to articulate speech, and it may be said with truth that "out of the abundance of the heart" the face will speak. Spontaneous expression is a universal language understood by all men, by children and even by animals. A kindly smile everywhere has but one meaning, while the state of mind indicated by the menacing brow is equally unmistakable. Goldsmith's lines on the village schoolmaster and his pupils happily illustrate this truth:—

"Well had the boding tremblers learned to trace  
The day's disasters in his morning's face."

"Full well the busy whisper circling round  
Conveyed the dismal tidings when he frowned."

The apparent function of certain expressions classed as defensive is to repel threatened danger as well as to give a formidable appearance; somewhat as a cat in the presence of a dog bristles up its fur, so enlarging itself as to appear of greater size than it really is. Many human gestures, while totally ineffectual, seem at least to indicate the intention of self-defense. Among these is the automatic closing of the eye at a flash of lightning. Darwin tells us that the contraction of the orbicular muscle of



the eyelids in crying protects the delicate organs of sight from congestion; and also, for our consolation, that there is a deeper cause than the old-fashioned theory which attributed the manifestations of rage to sheer wickedness. The person who, while under the influence of this passion, bites his lips, tears his hair and lacerates his body, is really engaged in "causing a diversion from the troubles of the more important nerve-centres and preserving the brain from grave dangers which would result from too vividly painful emotions." Besides our defensive expressions, there are movements that are purely sympathetic. The billiard-player who sees his ball impelled in the wrong direction throws his eyes, lips, and often the whole body, in the line which it should have followed. The tailor also, in cutting his stuffs, not unfrequently accompanies the movement of his scissors with a simultaneous movement of the jaws.

The different forms of intellectual or manual labor are all apt to be reflected in the face. The sculptor and the mechanic have a special expression which can be traced in the muscles about the mouth and also in the hand; while the expression of the painter is naturally concentrated about the eyes.

There are diverse expressions which subserve a double set of emotions, those evoked by the senses and by the intellect. It has been observed that many persons raise the upper lip and pucker the nostrils to ward off a bad smell; but the same motions equally express contempt or aversion and sometimes a sense of offended dignity. A cough may be the result of a physical necessity or of embarrassment; and with public speakers it is not unfrequently a substitute for a vanished word or a lost idea. There is also an analogy caused by a disagreeable taste and a sense of injured self-esteem. It has been noticed that when a man's self-love has been wounded and he cannot or will not retaliate and wishes to appear indifferent to the insult, there is a sort of contraction and forced immobility of the face, that gives rise to an accumulation of saliva in the mouth which the offended individual is obliged, after a while, to swallow.

Next to the tone of the voice and the manner of enunciation there is no more infallible test of breeding and social grade than

the way a man laughs. Although other signs may be satisfactory, a loud, boorish or cynical laugh is a note of warning. It was supposed at one time that man was the only being that laughed, but something like this expression of pleasure has been observed in other animals; when, for instance, a chimpanzee is tickled, his face undergoes contortions similar to those of a man when smiling, and he emits a sound which somewhat corresponds to our laughter.

All pleasurable emotions lead to an expansive form of expression. It is claimed that even oysters contract under the influence of pain, and dilate with pleasure. Children dance and jump and clap their hands when pleased, and it has been suggested that this infantile mode of expression is one of the first intimations of music. The best definition of good humor is perhaps that which was made by a little child less than four years old, who when asked by Darwin what he understood by good humor, replied: "It means laughing, talking and kissing." With the lower races the stomach is often the seat of greatest satisfaction, therefore the negroes of the upper Nile rub that part of the body at the sight of glass beads or other coveted articles. The Greenlanders gulp in the air when they are pleased, as though they were swallowing a delicious morsel.

The expression of pride is likewise one of expansiveness, and in its most aggravated form is shown by an inflated carriage. The proud man holds his head high, hence the English word haughty derived from the French *haut*. He also expands his body and inflates his cheeks. The lifting of the eyebrows is a common act under the influence of pride. Seneca is said to have had a *ensorium supercilium*; that is to say, an eyebrow worthy of a censor. The look of command which is the equivalent of pride or self-confidence, in a shifting and irresolute world is one of the most reassuring manifestations of this habit of mind. It is most frequently found among people of good birth and social position to whom control is easy.

It is significant of man's moral advance that his desire to conceal the emotion of hate has rendered the face less responsive to this impulse, at least in its initiatory stages, than



to the other passions, but when the transition from the passive to the active state has taken place it is the most evident and terrible of all the expressions. Some of the elements of the expression of hatred are, however, difficult to distinguish from those of pain. The eyes play a large part in its manifestation, but the mouth is the principal seat of this expression. It sometimes remains spasmodically closed in indication of the general tension of the muscles preparing for the struggle, but more frequently it opens and shows not only the front but also the canine teeth, the natural instruments of assault. With savages and children, as with our prehistoric ancestors, the teeth, especially the canines, are used as weapons. Even now we speak of soldiers "riding up into the very teeth of the foe"; but as a rule men only show their teeth, and in some stages of rage but a single canine is visible. When this is the case we have what is known as the sardonic smile, and in this expression Darwin again sees "an evident revelation of the hereditary tie which unites us to our first ancestors."

In fear, and terror, which is the extreme form of fear, the sense of both sight and hearing are intensely aroused. The heart beats violently and the skin is not only pale but for some inexplicable reason perspiration exudes from the cold surface; the hair also stands erect and the mouth becomes dry. The imperfect action of the salivary glands under the influence of fear is so well recognized that in India a custom arose of subjecting criminals to the ordeal of the morsel of rice. The accused is made to hold for a little while some rice in his mouth; when he throws it out if the grains are quite dry he is believed to be guilty.

Darwin concludes that some of the expressions of fear may be accounted for in part through the principles of habit, association and inheritance, and he believes that the involuntary bristling of the hair "in the case of the lower animals serves to make them appear terrible to their enemies, and as the same involuntary and voluntary actions are performed by animals nearly related to man, we are led to believe that man has retained, through inheritance, a relic of them now become useless." The erection of the hair is not limited to the influence of fear and of rage alone. It is com-

mon with insane people before a maniacal paroxysm, and the condition of the hair is often a criterion of the mental state.

Although morbid physiognomy is not without interest, we have not space here to consider this phase of facial expression. To the practiced eye many diseases are clearly shown by the countenance alone. It was of a consumptive face that Sir Thomas Brown wrote in his famous letter to a friend: "Upon my first visit I was bold to tell them who had not let fall all hopes of his recovery that in my sad opinion he was not like to behold a grasshopper, much less to pluck another fig, and in no long time after seemed to discover that odd mortal symptom in him, not mentioned by Hippocrates, that is to lose his own face and look like some of his near relations, for he maintained not his proper countenance but looked like his uncle, the lines of whose face lay deep and insensible in his healthy visage before."

The shades of expression are infinite which mark the countenance in the transition from health to disease, from hatred, fear, terror and malice to the look of benevolence and serenity found upon the face of the honest and good man. While the thoroughly upright man is almost instinctively recognized, it is not so easy to discover the elements of good which may exist in men whose probity is not sufficiently pronounced to show itself in the face. In the absence of positive data we again turn to Lavater, trusting to his fine perception for suggestions, which if they lack the weight of verified facts, at least conform to reasonableness. He says: "The ugliest and most discredited faces are sometimes the most honest; the most beautiful and best proportioned are often deceitful; nevertheless, I would trust a regular face more willingly than distorted features. When the eyebrows, the eyes, the nose and the lips are in harmony, the expression of goodness acquires the greater certitude. . . ." In other words, Lavater anticipated the criminalologist of the present day who believes that crime tends to be associated with facial and bodily disproportion, or assymetry.



## THE TIMES AND THE MANNERS.

EVENTS have moved rapidly in Russia since we last commented upon the revolutionary unrest. An attempt of the workingmen of St. Petersburg to present a demand for constitutional government and the "redress of grievances" has been met by officially ordered massacre. The Czar, after having "backed and filled" as his habit is, and changed his mind quite as often as presumably he changes his linen, has at last issued a rescript, not calling the popular assembly that was hoped for, but granting to the people a right to be heard through representatives. The Grand Duke Sergius, the undoubted leader and strength of the *reactionaries*, has been deprived of his head and gathered to his fathers. Poland and the Caucasus are in open revolt. The army of Kuropatkin has been crushed in Asia. What the immediate outcome will be no human being at this moment can foretell. Anything may happen within the next few weeks, or things may go on with little further apparent change for months or years to come: all things save one. The awakening of Russia has begun. The people are finding their voice and their courage. Count Tolstoi, to whom bloodshed is unconditionally wrong, whether it be at the hands of the autocrat or of the revolutionist, has little faith that the revolutionary movement can succeed so long as the peasants are the "dumb, driven cattle" that they seem to be to-day.

It may be that the peasants are not so lethargic as they seem, and it may be that a constitutional government can be established and maintained without their aid. Be that as it may, it is impossible to believe that Russia as a whole can ever again be so abject as to bear without protest or resistance the bureaucratic oppression that has paralyzed her energies since the death of Alexander II. Revolutions are more than turmoil, more than political reorganization. The biggest part of every true revolution is the awakening and transforming of the mind of the people. That process has unquestionably begun in Russia, and having been begun it will not now cease.

The isolated fact and the public are again in danger of being brought together to no purpose. The discovery has been announced that Singhalese scientists of the sixth century enumerated sixty-seven varieties of mosquitos, and four hundred and twenty-seven kinds of fevers, with which they were capable of inoculating other organisms. We have just been informed also that the slime of the springs at Baden Baden has been found to contain large quantities of radium. The inference that we are expected to draw from this last item of information is plainly indicated. In the paragraph setting forth the latest discovery of Monsieur and Madame Curie, we are reminded of the length of time these springs have been known and frequented. The Romans of an early period of the Christian era were acquainted with their healing power, says our press correspondent from Kehl. Attention is thus directed to the effect of revelations of this character upon the mind of the people.

As isolated bits of information, the immediate value to the layman of these discoveries of modern science is easily computed. Under the head of "fever," or it may be that of "bacteria," a new page on the history of the inoculation theory of disease will be added; while those engaged in defining or condensing the written history of radium will have still more to record of that least familiar of things under the sun. This we call a part of the process of "general enlightenment." The exchange editor is now busy with the dissemination of the same accretions to knowledge, while, doubtless, a goodly number of the well-informed have already stored up one or more items in advance of the slower public.

With such new proof of retarded civilization at his command, the cynic will be better prepared than ever to meet the optimism about him. But, as usual, both the cynic and the "casual observer" will have failed to correlate and co-ordinate their facts.

On the surface of things, the knowledge that two of the most important discoveries of modern science were made at least fourteen hundred years ago, is a bit disheartening. Added to a rather long category of similar revelations, the instances would seem for the moment to have made the depths of pessimism more deep.



When, however, we reflect that it is only within the last century that men have been trained to investigate any fact whatsoever, the pessimistic view of the scheme of things seems more dreary than necessary. There is at least something to be said in behalf of a people so engrossed in deeds of mercy, to the exclusion of all other ethical ends, that the extermination of the mosquito would have been a crime of unusual enormity. As for the western world, it is almost as easy to offer the extenuating circumstance. Not only is it true that we of a less tender-hearted civilization have but now begun to train ourselves to inductive methods of obtaining knowledge, but also it is barely a century more since we first had even a single investigator of facts scientifically unimportant in the day of Cæsar or of Tacitus. While the researches of the first Asiatic society date back to 1780, it is but a short time since the customs and practices of the people of Asia have been studied with the care that could bring to light the facts observed and recorded by the society regarding the spread and cure of malaria.

The pre-Darwinian scientist, then, must be pardoned for much that he has unjustly been held to account for. At the time when Boniface and his fellow missionaries were engaged in persuading the people of Germany to substitute later animistic beliefs for druidical or other non-Christian superstitions concerning the nature of their healing springs, chemical analyses were of course unthought of. The transplanting in Western Europe of an older Semitic culture was hardly more conducive to discovery in the natural world. Not until it was perceived that superstitions themselves were phenomena worthy of profound study could the day of many of our latest contributions to the sum of knowledge be hastened. The mind of the man of the Protestant Reformation was not appreciably different from that of the man of the Roman Conquest. Certain new impressions objectively acquired were added to those already stored in the particular division of his thought-mechanism to which they belonged. Co-extensive with this increase in capacity for observation, however, was a disproportionate enlargement of that other compartment of the mind reserved exclusively for things to be spiritually discerned.

To a mind satisfied with the Hebraic explanation of life, or to

one content merely to speculate as to its discrepancies, but few of the phenomena of nature were open to investigation. In view of the amount of time and energy expended upon the mere right of the individual to interpret for himself, even subjectively, that most dogmatic of Scriptures, it is remarkable that any discoveries in the objective world were made at all. It is significant to remember that of the men engaged in demanding verification of the premises of the Aristotelian and older philosophies, so large a number belonged to that religious school which delegated all questions of ethics to a particular group of its members. Equally important contributions to the sum of things objectively verifiable were made, however, by those to whom the questions of duty and privilege must be settled by each individual consciousness.

Without attempting to trace a direct relation between the discovery of the origin of species and that of the origin of the atom, it is at least doubtful whether the same progress in the understanding of the inorganic world would have been possible without the biological sciences. Had the physicist of the day of the Roman occupation of the Rhine country been trained in the psychological sciences, for example, it is hardly possible that the springs of Baden Baden would have waited until now for the analysis that has rewarded the efforts of Madame Curie. That is to say, it would be much more reasonable to condemn the physicist of to-day for neglecting to investigate with insatiable thoroughness a mineral spring whose waters had for centuries been known to restore lost energy to diseased tissue, than it would be to hold to account the physicist to whom the integration of matter and the equilibration of energy taking place in the organic world was unknown. With his crucibles and alembics the alchemist toiled to find the elixir of life, or to transmute the baser metals into the gold and silver that would secure more abundant happiness. But the instinct of the wounded animal led him straight to the thermal spring, or mud bath. Is it too great a departure from the rules of scientific generalization to entertain a reasonable doubt whether with a knowledge of this habit of the wild animal, and a desire to know the psychological basis of all superstitions, the discovery of the disintegrating atom would have been so long delayed? But to require



of Diocletian, of Paracelsus, or of Lavoisier, successful experimentation in the search for the synthesis of the elements is to ask a miracle. The cynic, rather than the physicist, should be held to account for the slothfulness of his ways. It is the man of to-day who has not learned to correlate his facts, and not the man of yesterday that is behind the times.

It was not Omar, by the way, but Hobbes, who, with inimitable candor, defined superstition as religion out of fashion. Yet the interesting revelation that twelfth century Persia had relegated to obscurity a similar suggestion, accomplished little more than the pleasantry of the author of "The Leviathan" had done. Not all who are enamored to-day of Fitzgerald's translation of the quatrains of the Persian poet, however, have been able to derive like enjoyment from the less poetic observation of the philosopher. It is one thing to say, "Yesterday this day's madness did prepare," and another to point to a particular form of mania. It sometimes happens, however, that one possessed by the least suspected of popular illusions betrays himself, without the diagnosis of the social pathologist.

The Governor of Alaska has offered that expert an unusual opportunity. In a recent article on witchcraft among the people entrusted by us to his government, the chief executive of our northernmost possession presents an account of superstitions, long since unpopular in the older commonwealths, that are plainly enough the bane of Alaskan civilization. It is quite evident, indeed, that the most approved methods of putting to flight the beliefs in the supernatural origin of disease and wickedness that are held by this frankly animistic people, are of little avail. "When a child is born with a curly lock of hair on his head, it is taken as a supernatural sign that he is set apart to be an Indian doctor or sorcerer," writes the historiographer of their practices. After a youth spent in religious observances of extraordinary unreasonableness, this sorcerer, or priest, is qualified to be consulted upon all matters, and in particular upon cases of witchcraft. The measure of his influence, as compared with that of the administrator of civil affairs, is set forth in Governor Brady's frank

avowal of temporary defeat. Having failed in all previous efforts to help his unhappy subjects to understand the real nature of disease, it occurred to their ruler and chief to try another kind of experiment. Most of the supposed victims of the Esquimau witch were suffering from tuberculosis. It was therefore decided to make a public demonstration of the nature of that disease in terms of cause and effect. At a time of more than usual excitement over instances of witchcraft at Sitka, as many of the natives as possible were asked to come to the Governor's office. "I have a few good physiological charts," writes the lecturer of the occasion, "and I displayed the vital organs of the body, telling them the causes of consumption, from which the white people suffered as well as they. I talked all the forenoon, and in the afternoon we had another session. They had listened all day, but as I ended my talk an Indian chief cried aloud: 'Well, that is what the white men say. We are Indians, and we know that there are witches.' "

Up to this point Mr. Brady's mind seems to have worked with commendable freedom. It is only in regard to his plan for the further enlightenment of his people that the expert upon social hallucinations need feel called upon to question him. "There is nothing that will stamp it (witchcraft) out but Christian education, just as we ourselves are now kept from superstition by the same means," asserts our would-be disturber of baneful beliefs. Let us, therefore, suppose the first question propounded to him to be an inquiry as to the specific thing meant by "Christian education." Without wishing to place in too trying a position one whose services we are far from underestimating, might it not be permissible to inquire also to what extent his excellency, the Governor of Alaska, really thinks of the people of the older States of the Union as enlightened? May not his long residence among those given over to beliefs and practices with more tragic results, have made him look upon us more approvingly than we deserve?

In point of fact, there are in the United States to-day millions of persons whose ideas regarding the human body and its relation to a physical environment are hardly distinguishable from the



grossest superstitions to be found anywhere. Of this number it is safe to say that a majority has received instruction under what might be termed a system of Christian education. Exclusive of those receiving early training in religious schools, we may predict also that a large proportion of this unenlightened majority have had some kind of instruction in physiology and hygiene. Yet there is no doubt that it would greatly astonish those most familiar with the facts already in, to know the actual number of amulets, charms, and other articles in propitiation of evil that are worn by the native born of native grandparents outside the most ignorant classes. Add to this category but the tenth part of those who freely acknowledge their belief in luck, good and bad omens, and the like, and the list of superstitions, fashionable or otherwise, is very nearly appalling. Over against this mathematically uncertain number, however, may be enumerated with definiteness so great a number of persons of high school, of private seminary, or even of college education, who publicly assert their belief in the supernatural, that we wonder still more at Mr. Brady's estimate of us. We are obliged to doubt that he can be aware of the number of educated American citizens who, in spite of the revelations of modern science, hold beliefs of the most primitive order. Is he acquainted with the doctrine of the most recent of our religious schools, asserting that there is no such thing as matter, or that its unpleasant manifestations may be controlled by the simple process of negation? In this category also must be included the large membership of that less original though not less powerful sect, claiming immunity from sickness by other purely mental processes. Does he realize, further, that of the total population an overwhelming majority of individuals maintain in some form or other the idea that a case of pneumonia or of scarlet fever is fatal, or not fatal, according to the will of a being capable of disregarding natural law, and amenable to propitiation? Is his optimism, then, that which, taking all this into account, is based upon observation of the slow but certain integration of the results of human experience making for greater intelligence, or is his term "Christian education" a mere shibboleth?

Whether the Aphrodite lately rescued from obscurity in a warehouse is in truth a survival from the great period of Greek sculpture, or a Greco-Roman, a Renaissance or even a very recent copy of one of the Venuses of Praxiteles, is a matter upon which the wisest may be expected to disagree indefinitely. While the authorities are engaged in deciding for us this important question, however, two events are happening, of at least one of which both the open critic and the "soundest casuist" are obviously unaware. A thing of beauty has been brought to light, whose increasing loveliness needs no name to commend it. But those to whom the memory of the Aphrodite at the National Arts Club will be "a joy forever," whether it be an original or a spurious work of art, are now free to observe that we are being enriched in another way also. This enrichment may be said to consist in a somewhat unusual contribution to the humor of social psychology. The offer of the owner of the Aphrodite to destroy the statue, if a committee of experts, after due test, should decide that it was not cut from the Parian or Pentelic marble used by Praxiteles, is not more humorous, perhaps, than the avowals of the less interested; it is only more portentous. Great as would be the loss to America if this work of art should be demolished before our eyes, or referred to the art tribunals of other lands for final judgment, it would be a source of regret almost as unendurable had we been deprived of the opportunity to observe the operation of the mental processes now going on in the making of public opinion on the subject. No person in New York is competent to contribute any real knowledge upon the lovely lady's pedigree; that is admitted. But a Greek comes forward and remarks that the marble *tastes* Pentelic, and straightway a thousand or two æsthetic persons (who would greatly scoff at the suggestibility of a mob of workmen that should throw stones when some unknown voice called "scab") declare themselves satisfied, so revealing the fact that their own beliefs are unalterably fixed by suggestion. Thereupon the iconoclast comes forward with *his* observation that no dolphin tail in Parian marble carved by Praxiteles could have endured the shocks of time—and dirt—unto this day. "That settles it" for other thousands, who like the



doubting Thomas attitude better than "childish credulity." Of course they have repeatedly seen Greek vases of the third and fourth centuries B. C. as brittle as egg shells yet unbroken. But what has that to do with a dolphin's tail caressing the feet of Aphrodite?

When we remember how men still differ over matters of age-long controversy we need not wonder that some of our newer social questions are being presented with little regard for the rules of free discussion. In the public debate upon the subject of life-long monogamy as the ideal relation of the sexes, we should not forget that we are treating of a comparatively modern phenomenon, nor that it is a question involving the permanency or the overthrow of the very principles upon which our civilization has been builded. For nearly two thousand Christian years men and women have been bred in the belief that society would revert to worse than anthropogenic conditions but for the monogamic ideal of marriage, while the attempt to make spontaneous love the ideal upon which the relation should be based is comparatively recent. When, therefore, we are told—in answer to the startling proposition that marriage contracts should be limited to a certain period of years—that no woman, after living with a man for the specified length of time could find it in her heart to leave him, we need not despair of man's truth-telling faculties. The argument is by far the most straightforward of those of its kind made by the conservative. And straightforwardness is, after all, the main point worth considering.

Instead of falling back to the safe and impregnable position of one arguing from an *a priori* premise, the members of the New York City Chapter of the Daughters of the American Revolution, in their answer to Mr. Meredith, have unsuspectingly stepped out upon debatable ground. It is true that the opportunity presented is not as great as it might be if they were willing to discuss the question with perfect frankness. To the suspicion of disingenuousness, moreover, must be added the indictment of inexperience. Granting this reply to Mr. Meredith to have been acquiesced in by any large number of the disinterested, we may ask if anything

has been gained by submitting the question to a group so evidently selected with reference to unfitness for unbiased judgment? The question is not unreasonably raised. A body of women so happily wedded, so unfamiliar with the facts of any case of real marital wretchedness that dissatisfaction with a life-long marriage contract is something that they cannot understand, does not at first glance constitute an adversary of unprecedented strength. That which has been gained, then, seems not to be a more formidable opposition, but an unlooked for turn in the debate. Those who support the unpopular side have been at such pains to hold the dogmatist to account for a position whose title he refuses to submit, that they are in danger of failing to realize that another opponent with something like a real claim has entered the lists.

Whatever it may lack in definiteness, the appeal of these descendants of our revolutionary grandfathers is at least different from that of the churchman. There is something like progress in the mere opportunity to propound a new set of questions. It is now possible to ask whether the whole body of men and women opposed to divorce regards this answer of the Daughters of the Revolution as one covering the entire situation. Is it the popular conviction that every normal woman, by virtue of her life for ten years with the man to whom she is married must necessarily have arrived at this state of contentment? And are we to understand that, such being the nature of things, all other considerations are made unimportant? Equally preposterous arguments have been presented in favor of irrevocable marriage contracts, but it is doubtful if there are not those who would wish to qualify this latest statement of so one-sided an opinion. Without qualification, the inference is that but one party to the marriage contract is to be considered. Now it is a matter of quite general understanding that not even the august body of bishops of the Protestant Episcopal Church has ventured to stand for a despotism of quite such absoluteness. On the contrary, the impression prevails that the ecclesiastical bias tends in the opposite direction. That is to say, it seems to be the opinion of the church, so far as it has delivered itself of anything so open to criticism, that there is need for both parties to the contract to "make the best of it." The new argu-



ment in behalf of indissoluble marriages is not, therefore, more formidable than the old; it is simply a statement of dogma not yet closed to discussion. Any advantage to be secured from its advancement will depend entirely upon the frankness with which it is defended.

The other factor, to be welcomed with that of sincerity, is to be found in the progress made toward the real issue, for the defense of so extreme a position can hardly be entered into without a more or less free discussion of the economic questions involved. And this is a phase of the problem most treasonable from the theocratic standpoint. It is the failure to press this very issue that has kept the rationalist of the reform movement from progress on his side. When those who desire a scientific and rationalistic treatment of the subject of divorce have faced the fundamental economic questions, the real issue in this whole matter will have been taken. But that time will not come in Mr. Roosevelt's day, nor under the régime of Dr. Felix Adler and those of his contemporaries who are engaged in the ceremonial perpetuation of an older ethical culture.

Voyages to Utopia have been held in disrepute for so long a time, both by men of letters and by the student of social conditions, that it is doubtful whether the fate of the most intrepid would be less uncertain than that of his predecessors. Yet a master of comedy who would lure us to follow his adventures had never so large nor so discriminating a public. He would have need to qualify but in two respects; one, that he delay us not too long on the way, and the other, that his style be "no less prodigious than his matter." Of literary adventurers in the past, Rabelais is perhaps the prototype upon which both the world of letters and that of science would be likely to agree. There would be a difference of opinion upon minor points of qualification, but, on the whole, it is possible that a Rabelais who was interpretable in his own day might take us once more against our very will to his fortunate isle.

But this emphasis of the point that a parody of the twentieth century universe must be easy to understand, leaves no doubt as to the indispensable conditions exacted by the man of scientific habits.

The need for a master hand to point us anew to our land of dreams we would not express, however, without due respect for the order of things here and now, nor in disparagement of those already engaged in showing us its absurdities. It is not that we lack satirists, nor that they are unwilling to make themselves understood. There is Mr. Bernard Shaw, for example, who stands ready to explain his meaning at our slightest behest. It is not that we underestimate the art of interpretation. Indeed, but for the work of the editor of the new English edition<sup>1</sup> of the five books setting forth the heroic deeds and sayings of Gargantua and Pantagruel, we might not have been reminded of that classic and its author. Our lament is rather that the present seems not to boast a single denunciator of our vices and follies, whose way of attack is in the least likely to take us by storm. It may be that by our zeal for the saving of time and energy we confess that we uphold the method of the ordinary reformer, yet our appreciation of this sixteenth-century Aristophanes, this greatest of court jesters, is not lessened thereby. It is one thing, however, to like a monk in harlequin dress, if beneath the double disguise he yet reveal the man, and it is quite another to devote too much time to the question of the seniority and greatness of his methods. Much as the mere art of this forerunner of Cervantes, of Diderot, and of Balzac has enriched us, much as we have need to-day of one able to reduce to absurdity our very notions of the absurd, it is not the comedian seized upon and carried away by "the genius of extravaganza," the Rabelais "intoxicated with gaiety," and "mad with folly," upon whose exploits attention need longer be concentrated. It is the Rabelais willing to maintain his doctrines, "*jusqu' au feu exclusivement*," that we sing, the man who, bearing the most formidable of weapons, was not only able to avoid disarmament, but to save his head when the block and the stake had claimed most of his friends and fellow heretics.

Stripped of the ribaldry which fascinated the sixteenth century, and the coarseness that appealed to a much later public, it now appears that the message of Rabelais anticipated all that

<sup>1</sup> "French Classics for English Readers; Rabelais," selected and edited by Curtis Hidden Page. New York, G. P. Putnam's Sons, 1905.



Rousseau and Molière had to advocate by way of educational reform, and that as a master of comedy its author should be ranked with Shakespeare himself. Such was the genius of this priest at the court of Henry of Guise, moreover, that his work has been accounted the model of Swift and Sterne, of La Fontaine, and of other romance writers as widely divergent in thought. The *Voyage en Salente*, in Fenelon's "Télémaque," in common with other contemporaneous stories of Utopian adventure, seems also to have been shaped after the experiences of Gargantua and Pantagruel. What, then, might have been the measure of the influence of Rabelais had his own, or had the third generation after him, discovered the whole of his philosophy and of his art? And is it not possible to invent a plan of capture equally compelling that shall have also the charm of directness? These are the questions that seem to us to have been raised by the publication of the first volume of the new series of French classics. We are glad to remember that the century of Servetus and Bruno produced in Rabelais so profound a thinker, so great a prophet, who was not also a martyr. We are glad that unnecessarily cruel treatment of the prophet is no longer the rule. But the satisfaction produced is far from that which "leaves nothing to be desired."

Other conditions that made the course of the sixteenth century satirist only a little less difficult seem to us yet to persist. It is not clear to us otherwise why the seer and savant who now "entertain us," find it necessary to keep us waiting even for their own interpretations of themselves. Of the dramatists who would now show the "age and body of the time its form and pressure," there seem to be so few whose reflections of nature are not, like the verses of "Alice in the Looking-Glass Country," in need of being rendered legible. We have at least three interpretations of Ibsen,—that of Ibsen himself, that of Mr. Shaw, and that of Mr. Shaw's idealist. Even Maeterlinck has only just begun to live and move in a world of beings not shrouded in a kind of mystery. As for those holding the mirror up to nature as it ought to be, it is possible that quite the opposite reason is to be assigned for their failure to inspire us. Concepts of cities, of "diseases, and accomplishments and sins," though presented for the first

time with all modesty, might not have created in the neolithic world the interest they deserved. There is no denying, at least, as our man of letters again reminds us, that it would all depend upon whether the cave-man presenting them "had a genius" or not. The apathy, the scorn, and the misconceptions with which the modern satirist has to deal, are certainly not more easily to be overcome. Plain dealing with facts, however cleverly brought to our attention, is not, at all events, our most conspicuous attainment. Whether we are stil' so enamored of mysticism that we would prefer to spend more hundreds of years in speculation over the eternally conjectural, and in controversy about the endlessly polemic, or whether four centuries have sufficiently prepared the way for a penetrable master of the art of satire, are among the questions for our twentieth-century Rabelais to answer us.



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## THE DISINTEGRATION OF MOROCCO ITS IMMEDIATE CAUSES AND PROBABLE RESULTS

ION PERDICARIS

**A**FTER the evolution of Japan, China may possibly be the next aspirant to take a place among the more "up-to-date" nations, whilst ultimately poor Morocco, very limp and lame, may also begin to move into line, though slowly and most unwillingly, despite the physic held so insistently to her lips by her would-be foster mother, Madame France, who has so alluringly labelled the unwelcome drug "Pacific Penetration."

For centuries this woebegone child of sorrow, Morocco, has lain like a mis-shapen incubus along the northwestern shore of Africa, a nest of pirates, a constant menace to the mariner, an abode of unmitigated cruelty and oppression, a curse to its own inhabitants and a terror to the rest of the world.

This state of affairs continued to within the memory of men still living, certainly, with occasional interruptions, until so lately as 1838-1839, when the appearance of the American flag off Tangier, together with the imperative summons of an officer of the United States Navy, Commodore Robert F. Stockton, obtained reparation for the wrongs inflicted upon American seamen, without the firing of a single shot. This incident effectively disposed of that exaggerated estimate of Moorish naval power which

until then had been so generally accepted, thus convincing those European nations who still paid an humiliating annual tribute to the Sultan of Morocco in order to secure their commerce from the attacks of his "Rovers," that this long-dreaded peril need no longer be feared.

As yet, however, no one doubted the Sultan's power to repel any attack by land.

In 1848 the support accorded by the Sultan of Morocco to the Algerian Emir Abd-el-Kader during the conflict which the latter waged against the French forces near the Oranese frontier again exposed Tangier to danger when this port was visited by a French squadron under the command of a son of Louis Philippe, the Prince de Joinville. Upon this occasion Tangier was bombarded and reparation was thus secured.

For the first time since the English occupation of Tangier from 1662 to 1684, Moorish territory was again invaded in 1860 by a Spanish force under General Prim, who, after a march of only nine miles, which entailed an almost continuous series of conflicts for a period of some six weeks, finally occupied the town of Tetuan, lying some forty miles to the east of Tangier, but on the Mediterranean side of the straits of Gibraltar.

Although Tetuan was eventually restored to Morocco in exchange for an indemnity conceded by the Sultan Mulai Mohammed, yet the military prestige of the Sultanate, like its naval power, had suffered irreparable disaster.

Mulai-el-Hassan, who succeeded his father, Mulai Mohammed, in 1873, although a brave soldier and most capable ruler, had learned how impossible it was for the wild hordes of his native followers to oppose the more highly trained and effectively equipped troops of even a minor European Power; but although Mulai-el-Hassan was unable to restore the prestige of Morocco abroad, he displayed eminent qualities in dealing with his own frequently disaffected subjects, and contrived to achieve at home a degree of cohesion rarely equalled in the annals of the heterogeneous races over whom he ruled.

The most immediate result of the defeats inflicted upon the Moorish arms had been naturally a marked alteration in the de-



meanor of the representatives of the Powers in residence at Tangier, who from an attitude of exaggerated humility had now assumed an unpleasantly authoritative tone, a circumstance which naturally also favored the interests and pretensions of the foreign merchants and other residents dependent upon the protection secured by the ministers and consuls of their respective nations. In the meanwhile the more aggressive the foreign ministers and consuls became, the better was it for their subjects, especially with regard to the advantages conferred by the principle of ex-territoriality, a principle the effect of which is to withdraw all litigation relating to foreigners from the native tribunals and to substitute for the decisions of the latter those of the respective consular courts.

A singular feature of the Koranic law is itself directly accountable for this state of affairs, since the Moslem or Mohammedan law deliberately excludes the evidence of any non-Moslem witness; and were this circumstance not sufficient to justify any and every foreign government in refusing to submit the interests, possibly even the lives and fortunes, of its subjects or citizens to the decisions of the tribunals thus constituted, the venality of the ill-paid judges or Kadis who preside over these native courts would sufficiently justify the distrust which their judgments inspire.

The interposition of foreign courts, combined with a native government strong enough to execute the judgments of these latter tribunals, secures, however, in practice some peculiar, not to say, unfair, advantages for the foreigner. The most objectionable of the consequences of this principle of ex-territoriality arises from the extension of the system not merely to the foreigner himself, but to the native employees or agents of the foreign merchants doing business in this beautiful but evil land. This strange elasticity of the system did not always cease here, since these employees or agents, thanks to the interested connivance of the country Kadis, or native governors, extended in their turn to innumerable relatives and dependants the same practical exemption from all taxation which they themselves enjoyed, and in many cases even the same immunity from punishment for the crimes which

may be fearlessly committed by the ever-increasing ranks of those natives who contrived thus surreptitiously to secure the cover of some foreign flag by which they were protected from the consequences of often quite inconceivable iniquities; and the very consulates and legations themselves became too often contaminated by a scarcely veiled traffic in this strange commodity known as "consular protection," a commodity which soon acquired, like other economic factors, its money value, and which was regularly, if secretly, quoted on the market. The difficulties resulting from these abuses led to a conference summoned at Madrid in 1880 in consequence of the representations of the Chereefian government, when Sir John Drummond Hay, then the English Minister at Tangier, supported by the representatives of some of the other nations, made an attempt to stem the tide of these disreputable abuses. Unfortunately, however, grave political influences had now become enlisted, in support of a system which rapidly increased the number, and at a trifling cost, of the adherents of certain neighboring Powers, who were then already looking forward to establishing some future claim of a more direct authority throughout the dominions of the Chereefian Sultanate.

Hence the result of the Madrid Conference was to establish still more firmly the privileges of consular protection, notwithstanding some not very important limitations which figured in the clauses of this international agreement.

Another and even more acute symptom of disintegration was the contraband traffic in arms of precision, a circumstance which, during the reign of Mulai-el-Hassan, had greatly favored the Chereefian troops in their conflicts with the disaffected tribesmen by giving them superior arms, an advantage which enabled that monarch to crush the various revolts which were, as they always had been, a quasi-constant feature of Moorish life. Mulai-el-Hassan himself had, moreover, occasionally experienced defeat at the hands of certain Kabyles or hill tribesmen of Berber origin who, secure in their more distant fastnesses, had been able to defy the Sultan's authority; but in the immediate neighborhood of Tangier, as of the other more important centres, the introduc-



tion of European or American rifles had not yet constituted a danger to the native government.

It was not indeed until quite latterly that the foreign authorities themselves became sufficiently alarmed to afford the native government any active support in suppressing this dangerous trade in arms and ammunition, and by this time it was too late to impose any effective check, since even the native officials, badly paid as they were and insecure as to the term of their appointments, were now themselves so largely interested in this roaring contraband trade that the superiority in every branch of armament save artillery had now already passed over to the tribesmen; and they, knowing every foot of the ground and fighting, as they generally did, for their homes and in defense of their fields and crops, were becoming from year to year more impatient of any attempts to maintain the authority of the Mekhazen or central government, and to extend the region where the Sultan's orders were too often executed by corrupt and venal officials whose very names had frequently become an offense to honest men.

Here, again, in the privileges of consular protection, another door was thus held continuously ajar, and thus also every foreign merchant and petty shopkeeper, each assisted by all his native henchmen, both near Tangier and all along the coast, was gaily working to destroy indirectly the very security that each had hitherto enjoyed, for on the day when there should be no Sultan able to enforce these ex-territorial prescriptions of the consular laws every Berber with a rifle in his hand would be master of the situation, and, within reach of his mountain lair, where none would dare to venture in his pursuit, each ragged barbarian would be equal to Sultan or Basha, able, moreover, to defy both ministers and consuls. Even the very tribesmen of the plains, cringing creatures beseeching our protection *yesterday*, might now band together and, creeping into our houses under cover of darkness, carry us off *tomorrow* to chains and slavery.

On the sixth of June, 1894, just as these dangers were thus accumulating, Mulai-el-Hassan died like a soldier upon the march. This incident terrified his accompanying counsellors and they brought the sovereign's body to Rabat under the pretense

that the Sultan was grievously ill, fearing to make public the news of the great Sultan's death whilst the expedition was still in the territory of the disaffected Beni Mesquine.

Luckily for a few short years the accession of his favorite son, Abd-el-Aziz, then but a lad of fifteen, was deferred whilst another strong hand, that of the grand chamberlain, Sid Ahmed Ben Moussa, known as Ba Hamed, the grandson of a Negro slave, held as Regent the reins of power for a term of years; but it "was writ in the Book of Fate" that this last representative ruler of the olden style was to be succeeded by a believer in *le nouveau jeu*, for Mulai-Abd-el-Aziz, the young Prince whose Circassian mother, Lalla Rekia, was not perhaps very well affected to things purely Moorish, had not yet learned how difficult it is to fill old skins with new wine, at least without exposing the skins themselves to disaster.

In May, 1900, the powerful minister died. On the death of the great Vizir, the young Sultan, now about twenty-one, hastened to assume control, and, delighted to escape from the masterful tutelage of Ba Hamed, he as speedily fell under the influence of El Mehedi-el-Menebbhi, formerly only an agent or collector of Ba Hamed's. The young Sultan now appointed him Minister of War, an incident which further established the influence of Kaid Maclean, an associate of El Menebbhi, though a British subject. This officer, who had formerly held a commission in the English army, had long been in the employment of the Chereefian government as military instructor of the Moorish troops, and had enjoyed the confidence of the late Sultan.

In accordance with the advice of Maclean, who also acted as an unavowed agent of the English government at the Chereefian court, the Sultan came to the coast town of Rabat, where for some months he awaited the presence of Sir Arthur Nicolson, the British Minister at Tangier, who availed himself of this opportunity to make the personal acquaintance of the young Sultan.

Several of the Ministers of other Powers also presented their credentials at Rabat to Mulai-Abd-el-Aziz, but it was evident that the young prince turned almost exclusively to his English advisers for counsel, and among the measures to which he had



already assented was the appointment of a special embassy to the Court of St. James in 1902, a mission confided to El Menebbhi and Maclean. As a reward for his services the latter, whilst the mission was at London, was knighted by King Edward VII, as Kaid Sir Harry Maclean, whilst decorations and honors were accorded to Menebbhi. These envoys subsequently proceeded to Berlin, and in order not to offend France, another Vizir, Ben Sliman, accompanied by Sid Mohammed Ben Guebbas, was sent to Paris and to St. Petersburg.

It was while El Menebbhi and Maclean were at Berlin that an incident occurred showing the tendency of the Sultan to sudden alterations of policy and attitude.

All well-informed observers of the former régime had noticed the absence of those rapid transitions from power to loss of office or of life so common at oriental courts. Mulai-el-Hassan had been his own efficient executive, taking counsel when occasion required with his Vizirs, but never resigning the reins of government into their hands; nor had it been his custom, on the other hand, to visit upon these officials the consequences of any unfortunate advice that they may have proffered. Indeed, so far as I had known them, this Sultan's advisers, during the earlier years of his reign, had remained in office almost without exception or change to the end, save when illness or a natural death had deprived their monarch of their services.

Now, however, at the very moment when El Menebbhi seemed most firmly established in his Sultan's favor, this ambassador was angrily summoned home on charges of speculation especially relating to the fortune of his late employer, Ba Hamed, who, it may be noted, had left the bulk of his property to the Sultan himself. It was now asserted that of this fortune a sum varying from \$200,000 to \$1,000,000 had disappeared, together with most of the late Grand Vizir's jewelry. Curiously enough, certain magnificent though barbaric regalia had, shortly after Ba Hamed's death, been offered secretly for sale at Tangier to ourselves, as well as to some of the leading bankers of the town.

El Menebbhi, warned by his partisans of the threatening danger, chartered a special steamer and hurried back with Maclean

to Morocco. The former would, however, have been immediately consigned to imprisonment on arrival but for the intervention of the English Minister and that of his German colleague. No sooner had El Menebbhi, owing to this intervention, secured an audience than he was immediately and completely restored to favor with a haste more in accordance with the procedure usual on the stage than in real life.

Another indication of a similarly rash decision had been the Sultan's acceptance of advice concerning certain administrative reforms, admirable advice in a general sense, but, owing to the fanatical prejudices of his people, the hurried attempt to carry out these reforms nearly cost the Sultan his throne.

"Pay your officials a reasonable salary," urged the Sultan's English advisers, "and thus be enabled to insist that your Kaid's or governors should no longer 'squeeze' your peasant farmers, as is the case at present. Instead of the tithes or tenths collected in kind upon every crop, a method which exposes the agriculturist to the mercy of the collector, impose a slight tax upon every head of live stock, with a few farthings upon each fig or olive tree, objects which can all be counted; and thus some of the chief abuses to which the farmers are now exposed may be avoided." At the instigation of the Ulema, *i.e.*, of the clergy and of the legists, these measures were, however, violently opposed by the farmers themselves, as well as by the officials who were to be benefited, on the ground that as the collection of the tithes or tenths of every crop was sanctioned by Koranic precepts, to substitute these new-fangled foreign measures would, it was urged, tend to weaken that faith upon which the old system, adopted in every Moslem country, depended. Thus these proposed reforms almost proved a more violent disintegrant than enemies without or foes within, and what the fleets of France or the arms of Spain had left unshaken was now all but destroyed; the government, unable to collect its taxes, either the new or those the tribes had hitherto paid, found itself with a depleted treasury at a moment when a new and most serious peril suddenly menaced the state.

It must be prefaced that at the time of the death of the late



Sultan, Mulai-el-Hassan, his eldest son, Mohammed, who should in the natural order of events have succeeded his father, had incurred his father's displeasure and been placed under arrest, owing to various irregularities committed by this turbulent Prince during his exercise of the Kalifat or vice-regal functions with which he had been entrusted, whilst his father had been engaged in quelling a distant disturbance in Tafielt.

It was these excesses of the elder son, a Prince commonly known as "El Aouar," owing to a cast in the eye, which had led to the preferment of the Sultan's youngest son, Mulai-Abd-el-Aziz, as heir to the throne, although had it not been for the support of the Vizir Ben Mussa at the critical moment of the Sultan's decease, the elder son would have doubtless disputed the succession; indeed, several members of the court, amongst them two of the powerful tribe Ouled Jammai, of whom one was the Grand Vizir at the time, were opposed to Mulai-Abd-el-Aziz; but these Vizirs had been dismissed or subsequently imprisoned by Ba Hamed, who, so long as he lived, defeated all attempts of the partisans of the elder son to interfere with the arrangements which had been carried into effect at the time of Mulai-el-Hassan's death. Thus at the moment of these state receptions of the foreign representatives at Rabat, although the elder brother of the young Sultan was then safe under lock and key at Mekincz, not far from Fez, a certain Gilali-el-Zarhouni, a fellow-subordinate and rival of El Menebbhi, had latterly made his escape from the sultanate and was known to be somewhere in Algeria masquerading under various aliases and disguises, sometimes collecting tribute as a Wazani chereef, or otherwise engaged in various secret intrigues directed against Mulai-Abd-el-Aziz and especially against the latter's favorite minister, El Menebbhi.

Shortly after the young Sultan's adherence to the English suggestions concerning reforms in the system of taxation, and profiting by the unpopularity provoked by the attempt to introduce these reforms in the system of taxation and by the Sultan's many European extravagances and open indulgence in English sports and customs—his devotion to tennis and to billiards, his riding to the hounds in scarlet like an English country gentleman, his attempts

to perfect himself in the art of painting and as a photographer under American tuition, all harmless pastimes, but pursued in defiance of long-established custom or in violation of Koranic precepts—this enemy of the Sultan, and more especially of El Menebbhi, and of the English influence, Gilali-el-Zarhouni, suddenly raised the standard of revolt in 1902 at Tazza, a fortified and important strategic position commanding the mountain passes leading from Fez to the Algerian frontier, thus affording what may be described as a convenient French “side door” or *approach* to the capital of the Moorish or Chereefian Sultanate.

El Zarhouni did not at first, indeed, assert himself as a pretender to the throne, but allowed it to be understood that he had come to prepare the way for a more important personality; his appearance, in the meantime, was accompanied by a strange travesty of a widely different episode which had occurred in another quarter of the eastern world some 2,000 years ago. El Zarhouni as a reformer made his entrance upon the scene mounted upon a she-ass, hence the name by which he has been so often mentioned, *i.e.*, Bou Hamara—literally, “The Master” (or “He”) “of the She-Ass”—and accompanied by twelve followers. A significant fact about this insurgent leader, around whom the more disaffected mountain Kabyles speedily rallied, was that he disposed of unexpected financial resources, as was evident from the gold “louis” or twenty-franc pieces with which he paid for his supplies.

At one moment the rebel force menaced the capital itself, but the imperial forces under the command of El Menebbhi repelled this critical advance, although the troops were repeatedly thrown into confusion by the unexpected desertions of the supposed friendly Kabyles who had been summoned by the government to reinforce the regular army, which had been drilled by the English instructor, Kaid Maclean.

Ultimately the rebel, El Zarhouni, alias Bou Hamara, alias Mulai Mohammed,—since El Zarhouni ultimately asserted that he was himself the Sultan’s elder brother, though in reality he was the old adversary of El Menebbhi,—was driven back to Tazza by El Menebbhi, whose soldiers occupied that town itself, but only



to find themselves so vigorously besieged by the rebels that El Menebbhi urgently appealed to the young Sultan to come to his rescue. Abd-el-Aziz, acting, as it is believed, under the advice of Kaid Maclean, gathered such forces as he could, and after many dangers, due always to the treachery and disaffection of his own troops, finally extricated El Menebbhi from his perilous position.

During these operations, it is asserted that no less than 60,000 rifles, besides several field pieces, were carried over to the enemy by the rascally mountaineers whom the Sultan had summoned to his aid. Indeed, it was stated that the Sultan was more than once fired upon by his own troops, and that upon several occasions he barely escaped capture. Thus the shipments of the arms introduced by the petty contraband traders of Tangier and of the sea-ports were thrown into the shade by these wholesale but quite unwilling provisionments of rifles and field pieces which the treacherous Kabyles thus so discredibly secured from the Sultan without cost or combat. Indeed, these traitors were actually drawing pay and supplies from the imperial treasury at the time of their questionable exploit. El Menebbhi's energetic efforts in defense of the city of Fez and of his Chereefian master, when the Minister of War had with partial success thus repelled the assaults of his old enemy, El Zarhouni, did not, however, prevent the subsequent fall of El Menebbhi himself, an incident due directly to the publication of the Anglo-French agreement on the eighth of April, 1904.

The Sultan, who had duly been warned by Mr. Walter B. Harris, the *Times* correspondent at Tangier, of the negotiations which had been secretly carried on between London and Paris, was most painfully surprised, nor could his Majesty believe, after the assurances Menebbhi had received from Lord Lansdowne when the Moorish embassy had visited London, that he, the Sultan, would be thus left to his own resources without any preliminary notice from the ally to whose advances he had so rashly responded, and who now, for the sake of securing certain advantages in Egypt and elsewhere, agreed to give France a free hand in Morocco, and finally abandoned this young Prince to the tender mercies of "Pacific Penetration."

Behold, therefore, the poor Sultan cornered impecuniously at Fez, his subjects refusing to pay their taxes, his mountaineers loyal only to El Zarhouni, who had latterly declared himself to be the only true and genuine Mulai Mohammed, elder brother of the Sultan himself, in other words, the prince known as El Aouar, he of the defective eye and of the oblique moral vision! In order to counteract the impression produced by this assumption of pretended identity, the Sultan had summoned in haste from Mekinez the lately imprisoned prince, who accompanied the Sultan to the great mosque of Mulai Idriss at Fez, where this alleged or possibly real prince took the oath of allegiance to his younger brother, a ceremony which, singularly enough, did not appear to convince a single hesitating adherent, since the populace of Fez as well as the troops themselves were firmly convinced that the actor in this piece of somewhat theatrical representation was not in reality the long-imprisoned prince, but merely a more lately engaged "stage super" representing the Sultan's elder brother.

Nor were any of the many desperate attempts to fill the empty coffers of the sultanate more successful. At this moment the representatives of *la Banque de Paris et des Pays Bas* were presented to the Sultan by the French consul at Fez. These agents made the tempting offer of a loan of 50,000,000 francs, which the Sultan, after some hesitation, anxiously decided to borrow, agreeing to pay five per cent. interest, to be secured upon the customs collected at the various ports of the sultanate, where French inspectors were soon established.

This measure, the first foreign loan ever borrowed by the Moorish government, was most cleverly combined, since the French had managed to procure the money without according, on behalf of the French government itself, the slightest guarantee. Some portion of the loan had been taken up, it is true, by members of the French Colonial group, of whom M. Etienne, an Algerian Deputy and now Colonial Minister, is the President, whilst other portions had been placed in Belgium and even in Switzerland.

The first victim of this Anglo-French accord was the Minister of War himself and his friends in the Sultan's Cabinet, and thus Menebbhi after having successfully defended the capital and the



person of his sovereign, was now invited by the Sultan, probably at the instigation of the French, to retire from office. In order to soothe the bitterness of this the most able defender of the throne, a pilgrimage to Mecca was suggested as affording a not too humiliating pretext for a prolonged absence from the country.

Kaid Sir Harry Maclean also found it requisite, for similar reasons, to retire from his command and to withdraw from Fez.

The next episode in this singular political "variety show" was the capture on the eighteenth of May, 1904, of the writer of this account and his step-son, both of whom were attacked, bound, and carried off from their summer residence near Tangier by Ahmed-el-Raisuli, the confederate chieftain of three of the mountain Kabyles in the neighborhood of Tangier. Amongst the features of the subsequent detention of these foreign residents, and one which most awakened the anxiety of the captives themselves, was the receipt by Raisuli of a letter from one of the two cabinet ministers of the former reign and who had ever since been imprisoned. One of the former Vizirs had died, and now the sole survivor of the unfortunate Ouled Jammai, a family related to the late Sultan, who had risked their lives to secure the succession of that Sultan's elder son, besought Raisuli in moving terms to include the present Sultan's pardon for himself, Sid Mohammed-el-Jammai, among the conditions demanded by Raisuli for the release of his American and English hostages.

A little later, a still more alarming incident occurred, since messengers also arrived at Raisuli's camp from the Pretender himself, emissaries who followed with the utmost attention the movements of the two gentlemen who were thus detained at the mountain village of Tsarradan, the headquarters of the Raisuli clan, and to whom repeated offers of an important command at the Pretender's court were made in the hope of securing the presence of these hostages as one of the assets of El Zarhouni, who had by no means abandoned all hopes of the successful issue of his own pretensions to the throne.

The capture and detention of these foreign residents, who were thus seized by Raisuli's adherents under cover of darkness and taken from their villa on the Spartello headland, in the im-

mediate neighborhood of Tangier, was the last touch needed to demonstrate the complete paralysis of all authority; and, furthermore, it subsequently revealed how impossible it was, owing to the opposition in the French parliament itself, for the French authorities to avail themselves of the free hand so generously accorded by England (at the expense of poor Morocco). The strange irony of the situation was accentuated by the fact that the English Cabinet had also amiably agreed to certain collateral advantages conceded to France elsewhere, including the extension of the time during which French holders of Egyptian securities might still draw five per cent. interest at an expense, not to England, but to Egypt itself, of some fifteen millions of francs or more, an outlay which might otherwise have been economized by a previously contemplated conversion from a five to a three per cent. loan, which could have promptly been effected. Yet in spite of England's accommodating mood, France has nevertheless been prevented from realizing her purpose in Morocco, not so much by any foreign opposition as by the unwillingness of the Radical-Socialistic majority in the French Chambers to vote supplies or accord a generous support to the clever scheme of their able Minister of Foreign Affairs, M. Delcassé. By constraining the latter to stand thus hesitatingly toying with a coveted prize, France has exposed the scheme of a pacific occupation of Morocco to a most serious danger.

It may be interesting to here record certain sensational episodes in the singular conflict waged by the opponents of the Menebbhi-Maclean faction at the Chereefian Court.

On the return of the ex-minister from his prescribed pilgrimage to Mecca, he visited Paris, where he was entertained by the French government, and when he arrived at Tangier the Sultan's officials received him with military honors.

These circumstances, skilfully manipulated by the hostile faction at Fez, had so excited the Sultan's displeasure as to entail not merely the confiscation of El Menebbhi's considerable properties at Fez and Morocco city, or Marakesh, but also at Tangier, where Menebbhi had lately erected a palatial residence; and even led to an attempt to seize his person. Whereupon, to the surprise of



the Moorish officials and to the intense annoyance of the French, it was announced that Menebbhi was a British protégé, whilst, the more effectually to secure his safety, the gates of his residence were guarded by the M'khaznia, the military guards or Kavasses, of the British legation, and when the ex-Minister of War ventured forth he was attended by the Sultan's quondam friend, Mr. Walter B. Harris.

Whether it was the intervention of the legation guards or the invisible yet awe-inspiring ægis of the *London Times* thus extended above Menebbhi's head, that worthy escaped the impending catastrophe, though such of his friends and relatives as had remained at Fez were seized, and everything that had been Menebbhi's was impounded.

Ultimately the French, whose feelings had been so hurt by this unexpected disregard of their privilege as the predominating Power, effected a compromise, and the Sultan unwillingly agreed to Menebbhi's retaining his Tangier property and a certain proportion even of his estates elsewhere, upon condition that Menebbhi, his late favorite and most efficient protector, should withdraw from Moorish territory.

No sooner had this solution been effected than Maclean, who had doubtless been summoned from London in defense of his ally and associate, inopportunately appeared at Tangier on his way to Fez. As such a step did not at all meet with French approbation, the English mournfully but obediently brought pressure to bear upon Maclean, who was thus detained at Tangier. Then, last and greatest of all the trials to which the French had been exposed, came the dramatic announcement of the approaching arrival at Tangier of the Emperor William in person, an ominous presence boding ill to penetration, pacific or otherwise. But the measure of French annoyance at Tangier was not yet full, for as the German vessels appeared off the coast, Chereefian letters arrived from Fez containing orders regarding the reception to be accorded the imperial guest, and—appointing Kaid Sir Harry Maclean commander-in-chief of all the Sultan's forces at Tangier; but to this last stroke of evil fortune the French agents at Tangier refused to bow submissively. The French officer

whom the Sultan had previously appointed to command the Tangier garrison was retained, and Kaid Sir Harry, unsupported either by the trembling native officials or by the English legation, regretfully took his departure—for Fez, and upon this occasion no one impeded his movements.

Thus apparently terminated for the moment this strange yet, from a French point, annoying accompaniment to that really adverse stroke of malignant fortune represented by the imposing presence of William of Hohenzollern. Surely it is only in a Morocco binding that we may expect to witness such singular vicissitudes within so minute a compass, intermingled with other complications of such world-wide magnitude as this visit of the Kaiser—an incident which may lead to such unforeseen results.

Among the causes of the latter episode was the displeasure excited at Berlin, at the time of the negotiations resulting in the Anglo-French agreement relating especially to Morocco and to Egypt, when various organs of both the French and the English press so imprudently betrayed their elation over the isolation of Germany, declaring that the centre of political gravity had now been transferred from Berlin to Paris owing, on the one hand, to M. Delcassé's arrangements with Russia, and on the other to the recent *rapprochement* between France and England and also between France and Italy.

No sign of this displeasure was then manifested. The Berlin chancellory maintained a discreet silence. Now, however, recent events in the Far East have diminished the value of Russia's support, whilst M. Delcassé's inability to overcome the hostility of the Socialist faction in the French Chambers has furthermore become daily more apparent. This has left the French in an awkward position in Morocco, where, whilst they would assume a control to which the native population is bitterly opposed, they are unable to offer to the residents or merchants of other nationalities, or even of their own, any guarantee of security.

The most indisputable justification of the Kaiser's intervention, however, is the evident determination of the French to reserve for themselves all government concessions, in spite of their enforced inability to assure the maintenance of order in the Moor-



ish Sultanate or to protect the inhabitants even of the coast towns against aggressions.

It is quite true, as the French assert, that the terms of the Anglo-French Agreement guarantee trade and commerce against the imposition of any invidious duties favoring French interests as compared with those of the merchants of other nationalities, though the stipulation in question is limited to a specific term.

What critics who are ignorant of trade conditions in Morocco do not realize is that the entire trade, both imports and exports, only amounts to about \$15,000,000 per annum, and that the fulfillment of government orders for public works required to develop transport and other resources, indispensably needed to render any serious expansion of trade possible, constitutes the only important financial operation of the immediate future. If France were willing to assume the responsibility or expense of maintaining order, she might have been entitled to reserve for French syndicates alone such advantages; but as it is, the Kaiser is amply justified in insisting that German merchants shall have a share in placing tenders for these Moorish orders, tenders or bids which, unless thus especially protected, would be defeated by the predominant influence which the French profess the right to assert by virtue of the Anglo-French Agreement of April, 1904, and the subsequent Franco-Spanish Agreement. The only way to secure this right to a share in such enterprises is for the various governments represented at the Madrid Conference of 1880 to hold the Sultan to that agreement, and to refuse to recognize any right on the part of France, England or Spain to guarantee to France or to any Power an exclusive or predominating influence in Morocco.

The authorities at Washington who scored brilliantly by the energy they displayed in securing the release of Raisuli's hostages from so painful a predicament, have now, also, taken up a position which, in view of this later and still more dramatic incident of the sudden appearance of William of Hohenzollern on the Tangier stage, would seem equally well considered and advantageous. The Department of State asserts that should France annex Morocco the government of the United States might accept without demur an effective occupation of the Sultan's dominions as-

sumed in the interest of law and order, which it has seemed of late beyond the Sultan's own unaided power to maintain efficiently; yet, failing such effective annexation, the United States, as one of the signers of the Madrid convention, must look to the Sultan himself to guarantee the rights and liberty of American citizens throughout the territory over which Mulai-Abd-el-Aziz, or his Mekhazen, claims jurisdiction.

Such a decision is the more important since it must not be forgotten that ports and docks must be constructed, roads and railways built, revenue cutters and cruisers for coast protection procured, as well as arms and ammunition, all of which will imply numerous government concessions; hence these concessions represent for the immediate future the most important item of available transactions or trade assets.

It is difficult to see, unless France should decide upon immediate armed occupation and annexation, why all these advantageous orders should be reserved, as is the present pretension, exclusively for French syndicates.

One may well ask, indeed, whether the Emperor William is not amply justified in suggesting a second conference relating to European and American interests in Morocco. Should such a conference, whether held at Rome or elsewhere, be decided upon, it might be advisable in the interests of an amicable solution to suggest a division of these Moorish government concessions, classified under some of the following heads, each class to be awarded to syndicates of the respective Powers interested in the settlement of this thorny question. As a mere suggestion, the following schedule is submitted according to the usual alphabetic order of precedence of the nations concerned:

1. Austria-Hungary, Concessions for uniforms and small arms,  
with other similar equipments.
2. Belgium, Electric appliances.
3. France, Execution of works for ports and harbors.
4. Germany, Artillery and ammunition.
5. Great Britain, Railways.



- |                   |                                       |
|-------------------|---------------------------------------|
| 7. Spain,         | Vessels and naval material.           |
| 6. Italy,         | Mining concessions.                   |
| 8. United States, | Sectional steel bridges. <sup>1</sup> |

Some such method, whilst dividing these remunerative concessions among syndicates of various nationality, would also tend to secure the interest and attention of the various Powers concerned in the welfare of the Sultan's dominions, and thus render each Power also conscious of the observation of its rivals or competitors, a fact which might possibly make for a fairer treatment of the Sultan himself, as well as of his subjects, than if both should be surrendered to the exclusive administration or trade influence of any single foreign nation.

The contention that because France possesses a conterminous frontier along the Algerian border she has a right to claim absolute and exclusive control, even while she declines all outlay or the assumption of any obligation to maintain law or order, conditions upon whose successful fulfillment the ordinary trade interests of every nation and of the country itself absolutely depend—such a contention is not worthy a moment's consideration. And we take it that, however inconvenient either to M. Delcassé or to other French statesmen, or even to simple residents in the Sultan's dominions, like the writer, such an incident as the Emperor William's dramatic intervention may have proved, yet it should be realized that the sovereign who controls the German legions was fully justified in asking where he and his merchants were to "come in" under this new process of diplomatic legerdemain favored by M. Delcassé and by Lord Lansdowne, a process which would seem too closely to resemble some of the most hackneyed tricks of the professional conjurer, performances which even children of elementary experience and understanding might resent were they asked to accept them as worthy of any serious attention; they are assured only of the fact that the monopoly-of-trade-concessions trick is evidently "up the sleeve" of one at least of the

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<sup>1</sup> In case any of the above Powers desired, they might be permitted to transfer the concessions which had been reserved for their own capitalists to syndicates not confined to their own nationality, but for the effective execution of whose contracts the nation to whom they have been accorded would still be held responsible.

two genial Powers who so generously agree to dispose of the property to which neither possesses any legitimate right.

In conclusion, it is only just to say that the faults referred to in the execution of the French plan up to the present lie neither at the door of M. Delcassé himself nor at that of the French Minister at the Court of Morocco, M. Saint René de Taillandier, than whom it would be difficult to find more efficient or more courteous officials.

The writer of these pages, having had the opportunity of personal intercourse both with the French Minister of Foreign Affairs at Paris as well as a more familiar acquaintance with the French Minister at Tangier, who has been charged with the late critical negotiations at Fez, is convinced that not only are both of these gentlemen inspired by sentiments of the most generous consideration for the well-being of the Sultan of Morocco and for his subjects, but that they would also gladly contribute by any reasonable concessions to the general prosperity and to the amicable accord of all those whose interests, either as merchants or as property-holders in the sultanate, will depend upon the skill and justice with which questions relating to the respective participation of the subjects of various nationality in the general movement consequent upon the opening up of the vast and almost virgin resources of so large and rich a territory are treated.



## MODERN ART FROM A JAPANESE POINT OF VIEW

OKAKURA-KAKUZO

**T**HIS essay is a confession—hence an appeal; an appeal, therefore a protest. And protests are apt to be wearisome. It concerns itself chiefly with the problems of modern art as seen from a Japanese point of view. The situation is not without humor, if we consider that the present difficulties of Japanese painting are partly due to your having introduced us to the lights and shadows of a modern national existence. It may be that retribution has overtaken you, in being asked to lend your ears to my incompetent presentation of the very problems of which you yourselves are the remote and innocent cause. I trust, however, that the Far Eastern point of view may not be altogether devoid of interest to you.

Your modern painting and the circumstances in which it is created are still seen by us against the background of our own ancient traditions. Our criterions may not be orthodox in your eyes, but they at least represent the standards of taste which have guided the æsthetic attempts of India, China, Corea and Japan through hoary centuries. Remember, too, that my criticisms are not dictated by any want of respect for Western art, compelling as it does, in all its phases, the unconscious homage of wonder, if not always of admiration. Our reverential attitude toward any true expressions of art can be traced to our time-honored axiom, that a picture should be approached as one would enter the presence of a great prince. We have been taught to prostrate ourselves even to a vase of flowers before examining the beauty of its arrangement.

In the first place, I wish to distinguish between the problems which concern the individual painter and those which concern society. To our Eastern conception of art, the questions of technique belong to the painter himself. The public has no right to determine what it shall be in the present or the future. The individuality of the artistic effort forbids that an outsider should meddle in its methods. The painter himself is but half cognizant

of the secret which makes him a master, for each new idea imposes its own modes and laws. The moment when he formulates his secrets is the moment when he enters on his old age and death. For beauty is the joy of the eternal youthfulness of the creative mind. And it is the sharing the gladness of the artist in his discovery of a reawakened life in the universe that constitutes the love of art to us. One of our monk-painters of the Ashikaga period in the fourteenth century claims that art is as the *Samadhi* of the playfulness of the human soul. *Samadhi*, as you know, is the term for supreme realization in their speech. Indeed, it is the magnificent innocence of the playful genius which is too selfish to be exclusive that makes all great art so unapproachable and so inviting to all.

Art is nothing if not the expression of the individual mind. A Chinese painter in the sixth century defined painting as the movement of his spirit in the rhythm of things. Another Chinese of the Sung dynasty (the eleventh century), with epigrammatic characterization of his age, has called it the mind on the point of the brush. Art appreciation is always a communion of minds. The value of a picture is in the man that speaks to you behind his pigments. It is in the quality of his intonation that we recognize his personality, not in the pitch of the key nor in the range of his voice. What intense personality does not lie in the silk and canvas of the old masters whose names we do not know, whose date even is a matter of archæological controversy? Who of the recognized great painters either in the West or the East has not directly appealed to us despite the distance of time and race? Their language is necessarily different. Some may be in the Confucian sequence of the white, some in the Italian sequence of the brown; others again in the French sequence of the blue; but behind the veil is the mind, always eager to tell its own story. The trade of the connoisseur is founded on the fact of this great individuality of the master which distinguishes him from the forger or the copyist.

The common weakness of humanity is to offer advice when it is not asked. Society has been ever ready to invade the sanctuary of Art. Patronage, with its accustomed superciliousness, has



often imposed its authority on a realm where gold could not reach. Public criticism, with the best intentions in the world, has made itself only ridiculous by trying to interfere in questions where the painter must be the sole judge. Why enchain the vital spirit of Art? It is evanescent and always alive, and is godlike in its transformations. Was it not a Greek who said that he defined certain limits in Art by what he had done? The Napoleonic geniuses of the brush are constantly winning victories, mindless of the dogmatic strategy of the academicians. The foremost critic of modern England has been ironically censured for his undue depreciation of Whistler, as one who was to be remembered by what he failed to understand. The fate of æsthetic discussions is to hang on the Achillean heels of Art, and therein to find the vulnerable point of attack. We can Ruskinize only on the past.

If I may stretch a point, the masters themselves may be said to be responsible for allowing society to frustrate the spontaneous play of later artists. Their personality has been so great as to leave a lasting impression on the canons of beauty, and any deviation from the accepted notions is certain to be regarded with suspicion. Society has been taken into the confidence of Art, and, like all confidences, it has been either too little or too much. The world has become disrespectful toward Art on account of the proffered familiarity. It feels at liberty to dictate where it ought to worship, to criticize where it ought to comprehend. It is not that the public should not talk, but that it should know better. It is not that society should not be amused, but that it should enjoy more. We are sorry to realize how much of real æsthetic sympathy is lost in the jargon of studio-talks.

The very individuality of Art, which makes its problem so subjective to the artist, at the same time makes it defy classification in time. It is a matter of doubt whether we can speak of the "modern problems" in painting as such with any amount of accuracy or with profit. The problem which confronts the painter to-day has been always with him since the days he first traced the mastodon on bone-fragments in the primeval dens of the cave-lions.

Of course, the history of painting means the constant accretion

of the problems of lines, light, and color until nowadays the complex machinery requires a gigantic intellect to set it successfully in motion. The step from the symbolic outlines of the early Nara painters to the depth and intensity of the concentrated ink-poems of Sessiu or Sesson, the change from the archaic drawings on the Etruscan vases to the subtle orchestration of shadows by Rembrandt or the mystery of color-equations as conceived by your living master John La Farge, presents such a contrast as to make them seem totally different. Yet the agony and the joy of the later workers have been equally shared by the primitive artists. They all belong to the common brotherhood of the brush who with infinite patience devoted themselves to the adjustment of styles and materials in order to create and appease the craving for beauty. It must not be supposed that the task of an earlier age was lighter because it was simpler. The burden of artistic effort must have been proportionately the same, for the desire of its real votaries is to carry all that it can bear. Life is eternal and so is art. The ancient and the modern meet within ourselves on the hazy borderland where yesterday parts from to-morrow.

In this age of classification we often forget that the eternal flow of life joins us with our predecessors. Classification is, after all, a convenience to arrange our thoughts, and, like all objects of convenience, becomes in the end troublesome. The modern scientific mind is apt to consider itself to have conquered matter by simply labeling it. But definitions are limitations, and thus the barriers to our insight. A seventeenth-century Japanese poet has written that we feel the coldness of things on our lips like a blast of autumn whenever we begin to speak. Laotze, in his supreme adoration of the Unspeakable, has pointed out that the reality of a house is not in the roof or the walls, but in the spaces which they create. So the reality of painting consists in its innate beauty, not in the names of the schools or periods in which we love to arrange it on the shelves of our historical consciousness.

The demarcation into the Classical, the Romantic, and the Realistic schools is meaningless to the great masters, for they meant to represent one and all of those modes. They are in a sense anachronisms for they transcend all time. They are sepa-



rate worlds in themselves, reflecting the universal formulas with the particular phases of the life around them. The age belongs to them as much as they themselves belong to the age.

It has been said that romanticism is the distinctive characteristic of modern art. But which of the so-called classic masters has not been romantic? If the term means individualism, the expression of the self instead of impersonal ideals, it must be the common property, nay, the very essence of all creative efforts. If the term means the emotional side of the art-impulse in contradistinction to the intellectual, or the sensuous, which respectively represent the classic or the realistic, it is again a name for Art itself, because Art is emotion. A painting is the whole man, with his infinite susceptibilities to the thoughts of other men and the nature around him. It is his essay on the world, whether it be a protest or an acquiescence. Delacroix has been considered the acme of modern Romanticism. But do we not see in him the all-roundness of a great artistic mind? He is an artist. He is a Delacroix.

Again, people are wont to claim that Realism is the insignia of modern painting. There is no Realism in Art in the strict sense of the word, for Art is a suggestion through Nature, not a presentation of Nature itself. We may notice that a vast amount of conventionality exists even in the French Impressionists who are said to have uttered the last word of Realism. Their best productions command respect, not on account of their power of painting sunlight, but in the value of the new poetry they are enabled to express through their outdoor technique. Their division of color was extant long before the modern Impressionism. Am I correctly informed that it was found in Titian? Certainly in Michelangelo!

Realism could not be the special characteristic of modern painting. What painting of all times and all nations has not evinced the desire for imitation? The relation of the artist to nature has been defined ever since Art was born. The climate of the land in which he worked, the amount of light, the landscape, the occupations of men, his hereditary memories, the moral and the scientific ideas of the age, which were intended to give him

confidence in the universe, have determined the character of his representation. His instinct was always to record what he saw or imagined that he saw around him. We must remember that what appears symbolic to us in the archaic forms of painting was considered highly representative in their own age. The earliest annals of painting both in the East and the West reflect the admiration for Realism. We have stories which I think you also have of the wondrous depiction of fruits which the birds came to peck, of horses so true to life that they neighed at night and often ran away from the walls.

Although the development of painting in different countries has created different methods of approaching nature, the original relation to it has never been broken. For nature is a part of Art as the body is a part of the soul. A Sung writer has called attention to the interrelation when he remarked that one admires a landscape for being like a picture, and a picture because it is like a real landscape. Art is no less an interpretation of nature than nature is a commentary on Art. The types of physical beauty in man or woman which have been the source of inspiration to great masters are in their turn determined by the ideal which they set for the succeeding generations. The waves have become Korin to us as shadows have grown to be Rembrandt to you.

I do not know if I have made my meaning clear to you. I have been trying to say that the problems of the painter are individual and subjective, that the method of expressing his personality lies entirely with each artist and forbids any interference from the outside. I hope that I have conveyed to you the idea that the questions which we may discuss profitably regarding painting are not whether it shall be more idealistic or less realistic, whether the artist should create in this scheme of color, or that tone of light. These belong to the painter exclusively, and he is well able to take care of himself.

Then what is the objective side of the question? What are the modern problems of painting which society can fitly discuss at all? I reply that it is the relation of painting to Society itself. Society regulates the conditions under which Art is produced. If it cannot claim the artist it can claim the man. If it cannot dic-



tate his technique it can furnish his theme, and to a certain extent his ideals. It is in the secret understanding between the performer and the audience that both delight. It is the humanity that reverberates alike through the chord of Art and the hearts of the people. The more human the call, the more universal and deeper the response.

Sociological conditions have not, however, always been favorable to the free development of Art and have often threatened to crush its existence, and sometimes succeeded in doing so. It is owing to this that the great masters are so rare. Indeed, it is a tribute to the virility of the art-instinct that we should have even the few. Their lives both in the East and West have shown remarkable instances of struggle and victory over circumstance. Hosts have suffered and have succumbed to social tyranny. Hosts are suffering and succumbing to their destiny.

Nothing touches us more than the weary lines on a great painter's face, for they are the traces, not of his contact with his art, but with the world. One is a joy and a solace, the other is an eternal torment. The antagonism between the two lies in the laws of their existence. Art is the sphere of freedom, Society that of conventions. The vulgar ever resents the ideal. Society is somehow always afraid of the living artist. It begins to offer applause when his ears are deaf—flowers when he is safely laid in his grave. The success and popularity of a living painter in many cases are signs of lowness of spiritual level. For the higher the artistic mind soars, the greater becomes the possibility of local or contemporary miscomprehension. Even in the perfection of Raphael or the princely ease of Rubens, we are tempted to miss the sublimity of the tormented soul of Michelangelo.

Society has not only been inimical to individual masters, but has at times indulged in the wholesale destruction of schools. Political changes have often enacted tragedies, war has devastated many a garden of beauty. With due respect to the interesting qualities of German art, we cannot help contemplating the enormous ravages inflicted upon it during the long religious wars of the Reformation. After Durer there seems to be no painter of that calibre, and the Teutonic race has come to be characterized

as "ear-minded" by other more fortunate nations. The Flemish, the Dutch, the Italian, the Spanish, all have had their share of the disastrous consequences of national convulsions. The French Revolution, despite its far-reaching beneficence, gave a severe blow to traditional excellence. In these we are but alluding to a few instances of the constant persecution of European art by society since the days of the Greeks.

Eastern Art had also its ample measure of such catastrophes. To give an example: the conquest of China by the Mongols in the thirteenth century brought about a sudden downfall of Celestial Art from which it has never since been able to recover. As you are doubtless aware, the time at which this calamity occurred was the brightest age of Chinese painting. It was in the Sung dynasty, so rich in poetical and philosophical inspirations. It was the age when Confucianism had evolved a new meaning by the synthesis of Taoist and Buddhist ideals. It was the age when China was breaking through the crust of her ancient formalism, when political and economical experiments were tried on a vast scale. You will remember that the wonderful porcelain of China was the special product of this period of universal activity.

Painting was the art of the Sung. It is to their masters that the later Chinese, and we, Japanese, owe the higher conception of the quality of the line, or the manipulation of light and atmosphere within the condensed area of black and white treatment. Before them Chinese painting was beautiful in its repose, with the stately completeness of the style which we see in the remains of early Indian or Greco-Roman painting. The Sung artists emancipated Asiatic art from this classicism to turn its gaze on the poetry of movement and seek new meanings of life in the intimate aspects of nature.

It is always fatal to generalize on art-epochs, but none more than on this Sung period, when each artist is a school by himself. I should but tire you with the enumeration of illustrious names like Ririomin, Beigensho, Bayen, Riokai, Choshikio or Mokkei, for they may signify very little to you. I shall only draw your attention to the series of paintings of Buddhist saints owned by the Boston Museum which, though not by any recognized master,



is a fair specimen of the later Sung work. There you will find the expression of an artistic mind of a high order which can hold its own beside the early Italians.

Alas! all these brilliant achievements of the Sung "illumination" were stopped in their full career by the advent of the Mongol conquerors. Their barbarous rule crushed the vitality of the native civilization, and painting had barely a chance to survive. Thenceforward it is a decadence relieved here and there by a few exceptional geniuses. It was not the Mongols alone who inflicted such disaster on Chinese art. The Manchus have come again from the North to impose another alien government. Wars and disturbances never ceased to harass the Celestial painter. What one regards to-day as representative of Chinese art is but a dismal shadow compared with what it was in the glorious age of the Tang or Sung masters.

In Japan, owing to our insular position, we were saved from the Mongol disasters which beset the Chinese art. Yet there are instances when civil wars destroyed local centres of art. One on the largest scale which affected the whole of Japan was the war of the Ashikaga-Shogunate, which raged with few breaks for nearly a century following the fifteenth. It ravaged Kioto and Nara, the ancient capitals where the arts and crafts had clustered from early days. The school of portraiture which culminated with Nobuzane, the virile representations of contemporary life which are seen in the Tosa makimonos, were a vital force before this sanguinary period. The vigor of Buddhist painters had then but slightly abated, for the splendid Kakemonos, commonly attributed to Kanoaka, are mostly produced within two centuries of this crisis. But in the incessant turmoil of the late Ashikaga period the artist had no place to pursue his vocation. The monasteries, which were the nurseries of painting, were burned or decimated of their occupants. The function of the hereditary court painters ceased, for the court itself was suffering through the misfortune of continuous war. Any one conversant with the history of Japanese art will notice how our Art wears an entirely new aspect after the restorations of peace. They have evolved new, interesting phases, but the ancient traditions of the Kasugas and Tosas were lost forever.

The calamities imposed upon Art by the social conditions do not end here. Even in the days of peace we shall find that the so-called encouragement was by no means a boon to Art. The self-complacency of Society is apt to make itself believe that patronage is everything. On the contrary, the word "patronage" is in itself an insult. We want sympathy, not condescension. If Society really cared for good Art it would approach it with the respect due to all the noble functions of life. As it is, painting has been often called to the degrading service of Society. It was this that made the great Tang painter Yenrippen tell his children that he would disown them if they ever learned to paint.

Maeterlinck has said that if the flowers had wings they would fly away at the approach of man. I would not blame them if they ever flew away from the cruelties of floriculture. Art, the flower of thought, has also no wings. Its roots are bound to humanity. It is painful to think how it has been trimmed, cut and tortured by unfeeling hands to be confined in a vessel for temporary admiration. Sotoba, a Sung poet, has remarked, "Men are not ashamed to wear flowers, but what of the flowers?" If the Buddhist idea of retribution is to be believed in, the flowers must have committed terrible crimes in their former lives! Let us hope for the painters a better incarnation in their next.

Religion has been supposed to be the greatest inspiration of Art. It is often claimed that the loss of religious zeal caused the decadence of Art. But Art is a religion in itself. The mere fact of painting a holy subject does not constitute the holiness of the picture. The inherent nobleness and devotional attitude of the artist's mind toward the universe, alone stamp him as the religious painter. It has been remarked that in the picture of the bamboo by Sankoku lay the whole mystery of Taoism. The stereotyped representations of Christian or Buddhist subjects, of which, alas! there are so many, are not only a parody on religion, but a caricature of Art itself. Here we see another instance of the effects of misplaced patronage where even Religion made a hand-maiden of Art, and thus robbed it of its legitimate expression.

Again, the ambitions of kings and potentates have led them to use Art for their own glorification. Their monumental works



were not the patronage of Art, but patronage of themselves. The same spirit of self-importance moved them as that which led to the encouragement of portrait painting by the modern bourgeoisie. The instinct is natural, but not favorable to the elevation of Art-ideals. In the hundred golden screen of Momoyama, we find the magnificent tediousness that characterizes the work of Yeitoku, the painter-in-ordinary to the Japanese Napoleon. On the walls of Versailles we feel the elaborate insipidity of Horace Vernet, the historian of the Taiko Hideyoshi of Europe.

Society, in posing as the patron, forgets that its true function is that of the mother. Art was rarely allowed a place to nestle on its bosom. The waywardness of Art born of her innate individuality has caused her to be treated as a step-child. The palmy days of painting were only when the painters had a recognized place in the social scheme. In old times painting was either a trade or an occupation of the religious. The great masters belonged to the guild if not to the cloister. They were Bellinis or Fra Angelicos.

In the East, where hereditary profession is an important factor of society, the family took the place of the guild. Our old master was either a scion of the Tosas, or a monk, a Yeshin Lodzu or a Chodensu. The monkhood itself, later on, gave protection to the brotherhood of painters, for, in the strict formalism of Oriental life, the Buddhist gown afforded the means of liberation from social trammels. You may notice that the Kanós always held ecclesiastical titles, that Hokusai had a shaven head.

It must not be inferred that the conditions in the past which gave to both the Italian and the Japanese painters a recognized place in society, are to be considered ideal or perfect. I am simply pointing to the fact that the position of Art was not at least anomalous, as it is nowadays. The difficulty at the present time is that Society has broken the ancient harmony, and offers nothing to replace it. The Academy and the Institute are poor substitutes for the Medieval guilds or the Japanese monkhood,—the groups which kept up the traditions and furnished a home for Art.

The modern spirit, in emancipating the man, exiles the artist. The painter of to-day has no recognized function in the social

scheme. He may be nearer nature, but is farther from humanity. Have we not noticed how intensely human are the pictures of all the great masters? Do we not notice how distant and cold are the modern productions? Art for Art's sake is a wail of Bohemia.

If we look on the surface of things, it would appear as if there were no time in history when Art was so honored as it is to-day in Europe or America. The highest social distinctions are conferred on the successful painter and the amount of his remuneration is incomparably greater than that given the old master. Yet it is a matter of doubt whether he enjoys the fostering care and the stimulating influences which the community and brother-workers accorded him in the past. The very lack of finish and refinement in their work shows the difference between the new and the old. It is significant that in France, where the relation between the artist and the community is better kept than elsewhere in the West, where traditions are still adhered to by its "Institute," we find the most vital of contemporary achievements.

Modern Art education is not altogether the blessing that it is generally supposed to be. It is true that the academies and the museum have opened up to all what was once a secret of the trade. It is also true that systematic instruction has enabled one to overcome the unnecessary hardship of apprenticeship. But the Art academies cannot impart the benefits of the older method. The grinding of colors and the attendance on the master, however irksome it might have been, were the means of developing the moral fibre of the artistic mind. The constant contact with the master-worker, and the participation in the details of his work, were the best means of obtaining insight into the entire complexity of production. It is the home-life of Art which no school-life can replace. Art-education, as it is generally conducted, is destructive to individuality. Its systematic nature enforces a uniform rule on all. Again, the very facility of modern methods robs the student of that severe training which gave the finish to the work of old masters. Even the universal use of photographs which have come to be an important factor of art-work in these days saves the artists from the necessity of the arduous copying of masterpieces which was the essential point of traditional teaching. Who is not



a painter nowadays? We have so many amateurs that there are no great masters. We have made so much of ourselves that there is so little left in others.

We of the East often wonder whether the West cares for Art. The desire seems to be not for Art, but for decorations,—decoration in the sense of subjugating beauty for the sake of display. In the rush for wealth there is no time for lingering before a picture. In the competition of luxury, the criterion is not that the thing should be more interesting, but that it should be more expensive. The paintings that cover the walls are not of your choice, but those dictated by fashion. What sympathy can you expect from Art when you offer none? Under such conditions Art is apt to recoil either with incipient flattery or with brutal sarcasm. Meanwhile the true Art weeps. Do not let my expressions offend you. Japan is eager to follow in your footsteps, and is fast learning not to care for Art.

The social conditions of modern Japan have laid grave problems on her Art. Indeed, it is with a feeling of sadness that I approach the subject, for at the present moment Japanese painting is threatened with entire destruction. The danger is due to the effects of the series of wars that have continually disturbed us since the middle of the last century, and also the occidentalization of the national life. The advent of the American Embassy in 1853 precipitated the revolution which was to end in the Restoration, the restitution of the classic rule of the Mikado in 1868. This movement was the outcome of the Japanese Renaissance which began in the eighteenth century to recall us to a consciousness of the age preceding the Shogunates. The whole energy of our scholarship was then concentrated on the research and reconstruction of the literature and arts of the Nara and early Kioto period which had so long been obscured during the feudal age,—especially during the long wars of Ashikagas which we have already mentioned. The early half of the last century was marked by the rise of a classic school of painting as a resultant of this revival of ancient knowledge. The age was rich in artistic activity in all branches. Even the old-fashioned school of Kano caught new inspiration by a return to Sessiu and a renewed study of the Sung masters. The

Bunjiu school in the style of the later Ming and early Manchu dynasty were in full swing. Kioto was famous through the names of Okio, Goshun and Ganku. Hokusaid was living until 1848.

But the political agitations which then came over the nation turned our energies into other channels than that of Art. The threat of foreign complications was coupled with the actual struggle of overthrowing the Tokugawa Shogunate. The gleam of the sword and the flash of gunpowder were before the people's eyes by the year 1860. Kioto and Yeddo became the main centres of commotion, and unrest was over all the country. Uprisings in various provinces culminated in the general civil war which began in the vicinity of Kioto, and convulsed the nation from Kiushiu to Yesso. It was in those days that the art-treasures of the daimyos were scattered to form the ornaments of Western museums, when Buddhist painting and sculpture in the monasteries were wantonly destroyed in the mistaken zeal of Shinto converts.

It is heart-rending to hear of the burning of wonderful lacquer boxes to collect their gold, for nobody could afford what was considered a luxury in that moment of universal calamity. Painters had to abandon their profession. Those who did not follow the wars had to eke out a hard sustenance by rude hand-work.

The Restoration was accomplished in 1868, which marks the year when the last remnant of the army of the Shogunate was defeated and submitted to the authority of the Imperialists. It was in that year that his Majesty, the present Mikado, ascended the throne and inaugurated the enlightened policy which was to give Japan a place in the family of nations. But the necessary friction attending the adjustment of the old to the new social and economic conditions was a source of constant disturbance. We had riots and rebellions,—the last of which, the Satsuma Rebellion of 1878, was of quite a serious nature. After that, peace was assured, and Art had a chance to exist. In 1882 we had our first national exhibition of Painting. But the community was too deeply involved in solving the problems of modern industrialism to show any deep interest in the revival of Art. The best energies of the leading men were devoted to the framing and application of constitutional government, the revoking of the ex-territorial jurisdiction inflicted upon us by the foreign powers.



Another great drain on our resources and intellect was the organization of the army and navy to secure our independence; for our national existence was threatened by the continental aggression on our legitimate line of defense. We must try to live before we could paint. In 1894-1895 we had the war with China. In the present moment we are in a death grapple with one of the mightiest military nations of Europe.

The ravages of war are bad enough, but in Japan we have the hard task of facing the antagonistic forces which peace itself had brought to bear upon us. I refer to the onslaught of Western art on our national painting. A great battle is raging among us in the contest for supremacy between Eastern and Western ideals—with what results time alone can determine. I am aware that sincere lovers of Art in the West have always emphatically urged us to the preservation of our national style. I have heard many wonder why we should have tried to imitate you in painting as in everything else. You should remember, however, that our wholesale adoption of your methods of life and culture was not purely a matter of choice but of necessity. The word "modernization" means the occidentalization of the world. The map of Asia will reveal the dismal fate of the ancient civilizations that have succumbed to the spell of industrialism, commercialism, imperialism, and what not, which the modern spirit has cast over them. It seems almost imperative that one should mount the car of Jugger-naut, unless one would be crushed under its wheels. Socially, sympathy towards painting, as toward all other questions of life, is divided into two camps,—the so-called progressive, and the conservative. The former believes in the acceptance of Western culture in its entirety, the latter with a qualification. To the advocates of the wholesale westernization of Japan, Eastern civilization seems a lower development compared to the Western. The more we assimilate the foreign methods, the higher we mount in the scale of humanity. They point out the state of Asiatic nations and the success of Japan in maintaining a national existence by the very fact of recognizing the supremacy of the West. They claim that civilization is a homogeneous development that defies eclecticism in any of its phases. To them Japanese painting appears as

one with the bows and arrows of our primitive warfare,—not to be tolerated in these days of explosives and ironclads.

The conservatives, on the other hand, assert that Asiatic civilization is not to be despised; that its conception of the harmony of life is as precious as the scientific spirit and the organizing ability of the West. To them, Western society is not necessarily the paragon which all mankind should imitate. They believe in the homogeneity of civilization, but that true homogeneity must be the result of a realization from within, not an accumulation of outside matter. To them, Japanese paintings are by no means the simple weapons that they describe, but a potent machine invented to carry on a special kind of æsthetic warfare.

I would like to say in this connection that Japanese art has not yet been presented in its true light to outside nations. Except to the few who have made a special study of it, or to those whose real insight into beauty has made it possible to enter into its spirit, the real meaning of our national painting seems not to have been grasped by the general Western public. Japanese painting is still known through the color-prints of the popular school, and the flower and bird pictures which represent the prettiness, not the seriousness, of our artistic efforts. I beg you to know that in the works of the Japanese masters lies as deep a philosophy of life and religion of beauty as those which animated the creations of Western art. The mode of expression is different, but the intensity of the emotion is the same.

There is a certain phase of Japanese painting which is difficult for Western comprehension on account of its very Eastern nature. The monistic trend of the Eastern thought has led to concentration, where in the West it became expansive. The microcosmic notion of our later philosophy has even accentuated the tendency to express with simplest means the most complex ideas. In some cases, color and shading have been discarded in the eagerness of preserving the purity of the idea. It is not symbolism but infinite suggestiveness. It is not the simplicity of the child but the directness of the master-mind. An ink-landscape of Kakei or Sessiu is a world in itself, replete with the meaning of life. Without actual examples before us it is hard to make myself understood. To



take an analogy, the self-completeness of those masters is in its own way the self-completeness you find in the Mona Lisa of Leonardo or the Gilder of Rembrandt.

The fact that these concentrated poems were enjoyed by Japanese society is the proof of its culture. It shows the ability in the audience to sympathize and fill out the background which the artist has purposely omitted. The public was as much the painter as the painter himself, for both were required to complete an idea. It belonged to the age when the tea-ceremony was universally practiced, as a serious attempt to perfect the art of sympathy. As you are doubtless aware, the tea-ceremony is called a ceremony because it is not a ceremony. It was a vital method of realizing the harmonious appreciation of the facts of mundane life. The guest and the host were alike called upon to create the unity of the room, and the rhythm of the conversation.

I do not assert that Japanese painting has been always able to keep to this high standard. Like the tea-ceremony, it has often become formal and meaningless. We feel the fatigue of the art-impulse instead of its virility. But the worship of the suggestive has been an integral part of our art-consciousness. The ideal was always there, however we may have failed to approach it.

The conservative thinks that it is a great pity these ancient ideals should be lost. I, for one, who belong to the humble ranks of the conservatives, find it deplorable that the traditions of Chinese and Japanese painting should be entirely ignored. I do not mean to say that Japan should not study the Western methods, for thereby she may add to her own method of expression. Nor do I desire that Japan should not assimilate the wealth of ideas which the Western civilization has amassed. On the contrary, the mental-equipment of Japanese painting needs a strengthening through the accretion of the world's ideals. We can only become more human by becoming more universal. The value of a suggestion is in the depth of the thought that it conveys. What I wish to protest against is the attitude of imitation which is so destructive of individuality.

Disastrous as have been the consequences of the sweeping inundations of Western ideals, its ravages on Japanese painting might

have been comparatively slight had it not been accompanied with modern Industrialism. It may be that Western art is also suffering from the effects of Industrialism, but to Japan its menace is more direful as we hear it beating against the bulwarks of the old economic life. To us it seems that Industrialism is making a hand-maiden of Art, as Religion and personal glorification have made of it in the past. Competition imposes the monotony of fashion instead of the variety of life. Cheapness is the goal, not the beautiful. The democratic indifference of the market stamps everything with the mark of vulgar equality. In place of the handworks where we feel the warmth of the human touch of even the humblest worker we are confronted with the cold-blooded hand of the machine. The mechanical habit of the age seized the artist and makes him forget that the only reason for existence is to the one, not the many. He is impelled not to create but to multiply. Painting is becoming more and more an affair of the hand rather than of the mind.

The task of preserving Japanese painting against all these antagonistic influences is not easy. It is a matter of no small wonder that there has been produced within recent years a new school of national painting. Our hope for the future lies in the tenacity of the Japanese race, which has kept its individuality intact since the dawn of its history. Two generations cannot change the idiosyncrasies of twenty centuries. The bulk of the traditions still remains practically unharmed. Of late years there has been a marked tendency to a deeper recognition of the best in the ancient culture of Japan. We are glad to see in the heroic sacrifices of our people in the present war that the spirit of old Japan is not dead. Our greatest hope is in the very vitality of Art itself, which enabled it to thrive in spite of the various adversities which it had encountered in the past. A grim pride animates us in facing the enormous odds which modern society has raised against us. At the present day we feel ourselves to be the sole guardians of the art inheritance of Asia. The battle must be fought out to the very last.



## THE HOUSE OF MICHELANGELO AND THE GRAVE OF VITTORIA COLONNA

RODOLFO LANCIANI

I DO NOT belong to the party, small but noisy, which has filled the world with lamentations over the transformation of Rome into the capital of united Italy. On the contrary, I have always expressed the view that the city has gained in these last thirty-four years of its life far more than it has lost: and that these melancholy mourners over its fate—mostly of the fairer sex—ought to be compared to the miser who, unmindful of the treasure secured, gets into fits of despair over any small gain which escapes his grip. An impartial judge who would put in the scales the benefits and the losses which we Romans have derived from the transformation of the city, and would weigh the matter from the point of view of health, cleanliness, comfort, prosperity, self-respect, science, history and archæology, would undoubtedly congratulate himself upon the general results of the undertaking. Having thus once more expressed my opinion on this controversy, I do not hesitate to mention two cases, the occurrence of which has caused much regret to the student of the Golden Age of the Renaissance in Rome: namely, the disappearance of the house in which Michelangelo departed from this life on February 18, 1564, and that of the church in which Michelangelo's greatest and noblest friend, Vittoria Colonna, Marchioness of Pescara, was laid to rest on February 25, 1547.

Michelangelo's house stood on the west side of an obscure street, since called Via dé Fornari, and was marked by the number 22. It occupied a small section of the area of Trajan's forum, or, to speak more exactly, a section of the west peristyle of the temple raised in memory of that best of Roman Emperors at the northern end of the same forum. The house, although disfigured and modernized some forty years ago by the late Prince Alessandro Torlonia, was leveled to the ground in the spring of 1902, to make room for the so-called Foro Italico, a square of enormous size, to be laid open in front of King Victor Emmanuel's national

monument. The proof of the ownership of the house by the "divine artist" was given by Gasperoni in 1866, on the official authority of a deed concerning the first cutting of the said Via dé Fornari, through the block of gardens and dwellings by which at that time (June, 1555), the forum of Trajan was separated from the Piazza dei Santi Apostoli. The "casa del magnifico Michelangelo" is described in that deed as adjoining the church of Santa Maria di Loreto, on one side, and the Palazzo Zambeccari-Bonelli on the other, both of which landmarks are now standing. There he died, as I have said, on February 18, 1564. On the day following the house was entered by the Substitute Fiscal, Angelo Antonio de Amatis, commissioned to make the inventory of its contents in the interest of the nephew and heir Leonardo, then on his way from Florence to Rome.

Let us follow in the footsteps of the worthy magistrate, together with Michelangelo's most intimate friends, Tommaso dé Cavalieri, Daniele Ricciarelli da Volterra, Jacopo del Duca, and Diomedes Leoni da Siena. On entering the death-chamber from which the body had just been removed to the parish church of Santi Apostoli, we behold a scene telling a great and touching story of frugality, of modesty, and simplicity.

The couch in which that mighty spirit had parted from the mortal frame had one mattress stuffed with straw, two mattresses stuffed with wool, two woolen covers and one of kid-skin. The top of the bedstead was protected by a canopy of white linen curtains, supported by a wooden rod. A plain wardrobe, on the right of the bed, contained his induments and part of the underwear and household linen. There were two overcoats, one gray and one reddish-brown in color, lined with fox-fur; a satin blouse (*camiciuola*) ornamented with red silk ribbons, and other articles the description of which I find too difficult to translate from the conventional phraseology of the inventory. The linen and underwear closet contained eight bed-sheets (besides three left hanging in the sun, across the courtyard), eight tablecloths, nineteen shirts which had been worn, and five new ones, two flannel shirts, fifteen handkerchiefs, and eight towels.

The description of the next room, occupied by Michelangelo's



faithful valet, Antonio del Francioso da Castel Durante, contains no item of interest. In the cellar was found no wine, but a cask of vinegar and five jars of water, probably from the fountain of Trevi, which was the only drinkable water at that time. Michelangelo's horse, which he had been riding in the cool of the evening to the very eve of the fatal malady, is described in the inventory as "*ronzinetto piccolo di pelo castagnaccio*" (a poor little chestnut mount).

In a shed, near the stable, where the "*ronzinetto*" was tied to the manger, they found three unfinished works of statuary: a St. Peter and a Christ, both larger than life, and a smaller Christ bearing the cross on the shoulder. The description of the cartoons is of special interest. On the first, made of several sheets pasted together, Michelangelo had drawn his own plan of the church of St. Peter, then in course of reconstruction; on the second the plan of the same church, as conceived by Antonio da Sangallo; the last is described as a "great cartoon on which are designed the figures of our Lord Jesus Christ, and of the most glorious Virgin Mary, His mother." This was claimed by Tommaso dé Cavaliera as a present made to him by the divine artist, a long time before his death.

The strong-box of polished walnut was found to contain eight thousand one hundred and ninety gold ducats, and about two hundred scudi (\$10,500) mostly done up in bags, or tied in handkerchiefs. The money and the cartoons were deposited in the safes of the Banking House, Roberto Ubaldini & Co.<sup>1</sup> pending the arrival of Leonardo. Leonardo got his money on the 27th of February, and Tommaso Cavalieri his cartoon on the 7th of the following month.

The house in which Michelangelo had lived in retirement for so many years, with no one to cheer and brighten his long vigils: the house which ought to have been transformed into a shrine sacred to the memory of the greatest genius Italy has ever produced, was sold to Martino Longhi, the architect, in 1584. It could not have fallen into more evil hands. Martino himself was

<sup>1</sup> Ubaldini & Co. occupied with their premises part of the ground floor of the palazzo Alebrini in the Via de Banchi, which street was, at that time, the business centre of Rome, and one of the business centres of Europe. The Chigi, the Fugger, the Furtenbach, the Ricasoli, the Strozzi, the Altoviti, the Cavaleanti and many other millionaires had their offices in the same street.

not a bad man, but his eldest son, Onorio, can be safely classed among the worst scoundrels of the age. The records of the police at the end of the sixteenth and the beginning of the next century contain the reports of at least twenty-five street brawls, in which Onorio Longhi took a leading part, striking defenseless women and children, throwing his own blame on innocent bystanders, and perjuring himself before the magistrate with astounding shamefacedness. In 1611 the house had become the property of another disreputable kinsman of Onorio, of Stefano Longhi the sculptor, the author of the tomb of Paul V. in the church of Santa Maria Maggiore, and of the memorial to Cardinal Cusano in that of Santa Maria in Vallicella.

With the destruction of the block in which the house stood, accomplished, as I stated above, in the spring of 1902, the last trace of Michelangelo's residence in Rome has disappeared. His other dwelling at the first turn of the Salita delle Tre Pile, leading from the Piazza dell' Aracoeli to the Capitol, had already been leveled to the ground in 1872.

Whenever we study the life of great men we find that the "psychological moment" of their existence coincides with their first meeting with a power equal to their own, a kindred spirit capable of appreciating and discussing the higher problems of life and art. It is enough for them to find a being by whom they are understood, with whom they can converse without having to explain words or sentiments, the deficiency of speech being supplemented by the fulness of thought. There is no greater desire than that of meeting such a congenial mind, no greater happiness than having found it, no greater sorrow than to lose it. Hermann Grimm, speaking of this psychological moment in the life of Michelangelo, quotes the instances of the friendship between Goethe and Schiller, or between Byron and Shelley, and adds that no such equal-minded friend was granted to Dante, Shakespeare or Beethoven: but to my mind the great men have only found the long-sought-for happiness when the ideal woman came across their path. We cannot conceive the greatness of Dante without Beatrice, of Petrarca without Laura, of Tasso without Eleonora, and



likewise we cannot separate Michelangelo from the sweet and noble figure of Vittoria Colonna.

Born in 1490 of Fabrizio I, Connetable of the Kingdom of Naples, and Anna di Montefeltro, betrothed at the age of four to Francis Ferdinand d'Avalos, son of the Marquess of Pescara, she married this gallant leader of armies at the age of seventeen. She was conversant with the Latin and Greek languages, and wrote with equal elegance in Italian prose and verse. Her poems were first printed at Parma in 1538, and again at Venice in 1544, under the enthusiastic title, "*Rime della divina Vittoria Colonna*," which title, however exaggerated, bears testimony to the great veneration in which she was held even in her lifetime, from one end to the other of the peninsula. There is also a pamphlet on the Passion of the Redeemer and other spiritual subjects, printed at Bologna in 1557, which has now become exceedingly rare.

The war between the "Holy Alliance" and King Louis XII., which raged in northern Italy from 1508 to 1513, caused the first parting between the bride and groom, he having fallen into the hands of the French leader Gaston de Foix at the battle of Ravenna (1512). Vittoria waited for his deliverance in Milan, and when the Italian League selected him as its candidate to the throne of Naples, she entreated him not to break his faith to the Emperor Charles V. The Marquess of Pescara, having resumed his military duties, led the imperial army to the famous victory of Pavia (1525) and to the capture of King Francis I. He paid, however, the victory with his own life.<sup>2</sup>

After this fateful event Vittoria led almost a monastic life, moving from convent to convent, and devoting her time to the study of the religious Reformation, which was at that time convulsing the whole Christian world and undermining the very foundations of the Church of Rome. It was at this juncture that she met Michelangelo for the first time in 1536, and it seems that, after so many years of sorrow and solitude, the pure and intellect-

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<sup>2</sup> Pescara lingered some months after the battle in a precarious state of health, and died of the effect of the wounds in September of the same year 1525. He was first buried in Milan, but his body was afterwards removed to Naples with imposing and stately ceremony, as became the Generalissimo of the Imperial armies.

ual intercourse with the great man raised once more her spirits, and made her life more cheerful. In fact, the following five years, which she spent in Rome, mark the happiest period in the life of both. The letters which they must have exchanged in great numbers have not come down to us, save a few exceptions; the foremost among these is one written by Vittoria à propos of a design for a crucifix which the master had submitted to her approval. The letter in which she expressed her admiration for the sketch, and her intention to retain it as the most precious souvenir of their friendship, begins with the touching address, "Unique Master Michelangelo and my most special friend" (Unico Maestro Michelangelo, et mio singularissimo amico!).

At this stage of her life Vittoria appears to us like one of those masterpieces of Greek statuary which, after the lapse of centuries, have found no equal. Little short of perfection, she had become the typical representative of the grand Italian lady of the sixteenth century, on account of her powerful and manly intellect, of her sincere piety and unremitting spirit of charity, of her purity of mind and body, and of her devotion for a lifetime to the memory of the husband of whose help and love she had been so prematurely deprived.<sup>3</sup>

Trollope, Ferrero, Müller, Benrath, Grimm, Reumont, Corvisieri, Rodocanachi, Amante and Fontana have spoken so exhaustively about her connection with the spreading of the religious Reformation in general and of the doctrines of Juan Valdez in particular, that I could well abstain from mentioning this interesting side of her life. Still, as the question of her hasty and disrespectful burial in the church of Sant' Anna dé Funari, and of the subsequent disappearance of the coffin, are closely connected with her alleged deviation from the Catholic faith, I must give a

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<sup>3</sup> In these touching sentiments of Vittoria I find the vindication of the memory of Pescara from the charges brought against him by several historians. He is accused of having listened to secret plans of treachery against Charles V, because the keeping of King Francis, whom he had made prisoner at Pavia, had been taken away from him; he is accused, furthermore, of having betrayed his friend Morone, and of having revealed the plot to the Emperor as soon as he found out how little chance there was of carrying it through. But if he had really been a "double traitor" the widow would have behaved in a different way.



brief sketch of the information we have gathered on this point to make my account clearer, and my paper more complete.

Vittoria had already expressed her feelings on the necessity of a Reformation in the sonnet which begins with the stanza:

Veggio d'alga e di fango omai si carica  
Pietro, la nave tua, che se qualche onda  
Di fuor l'assale e intorno la circonda  
Potria spezzarsi e a rischio andar la barca.

"I see thy ship, O Peter, so overladen with mire, that she runs the risk of sinking at the first attack of the waves." Other allusions to the same subject have been collected by Trollope in "A Decade of Italian Women," Vol. I., p. 352: but we must bear in mind that Vittoria had composed other poems in a strictly Valdesian spirit, which are lost. When Pietro Carnesecchi was brought before the Inquisitors, twenty years after the death of the Marchesa, he distinctly stated having read some of them.

Q. "Have you heard directly or indirectly the Lady Marchesa di Pescara express suspicious opinions concerning our faith?"

A. "It seems to me I have read in some of her sonnets that she believed in the absolute predestination, but I am not sure."

And again, in the cross-examination of February 19, 1567, Carnesecchi repeated that the doctrines with which the lady had been imbued by Occhino, Priuli and Flaminio had been hinted at in some of her poems. It is a fact that these compositions of would-be heretic spirit have not come down to us.

Another point of interest in this very much debated period of her life is the successful battle she fought in favor of the reformed body of Franciscans, known by the name of Capuchins. The Capuchins, instituted by Matteo da Boschi, and Francesco da Cartocceto in 1525, had met with considerable difficulties since the beginning of their conventual life; and it was only out of fear and respect for Caterina Cibo, Duchess of Camerino, who had given them shelter, that the general of the Franciscans, Quinonez, and the Cardinal protector of the order, Pucci, abstained from having recourse to extreme measures.

The interest taken by Vittoria in this controversy arose from three causes: viz., from her friendship with Caterina Cibo, from

the belief that the austere life of the Capuchins would be an object-lesson to the corrupted secular clergy, and lastly from the fact of her being the spiritual daughter of fra Bernardino Occhino da Siena, general of the new order since 1538, and a leading reformer. The correspondence of Vittoria contains many letters in favor of these humble followers of St. Francis, addressed to Cardinal Contarini, Ercole Conzaga, Agostino Trivulzio, and to the Duchess of Urbino Eleonora della Rovere. In one of them we find the following sentence: "The wicked men accuse our poor Capuchins of being Lutherans because they preach the freedom of the spirit; but if the Capuchins are Lutherans, then St. Francis himself must be considered a heretic. And again, if preaching the freedom of the spirit against the influence of evil must be considered a fallacy, then it is a fallacy to follow the Gospel in which we find the precept, *Spiritus est qui vivificat*." There is no doubt that Vittoria, shocked by the corruption of the clergy, and the general relaxation from ecclesiastic discipline which prevailed in central and southern Italy from the time of Leo X. to that of Clement VII., was advocating the reformation of the Catholic Church with all the fervor of a believer, and with the exquisite tact of the grand lady.

The letters exchanged with Marguerite de Valois, Queen of Navarre, prove that community of ideas had brought about a great intimacy between the French reformer and the Roman poetess: not that Vittoria meant to go as far as Marguerite in her disregard of the Curia, quite the contrary! Vittoria simply displays in her correspondence a spirit of tolerance towards the dissenters, that seems at least three centuries in advance of her age. And she was not alone in this standpoint: the most beautiful woman of the century, Giulia Conzaga, Duchess of Traetto, Costanza d'Avalos, Duchess of Amalfi, and Isabella Manriquez, sister of the cardinal of that name, were no less ardent followers of the ideas of Juan Valdez. This last person was obliged to fly across the Alps to escape prison or the scaffold; but the persecution of the two other ladies began, happily, only after their death, as we shall presently see.

The centre of this religious movement had been transferred



from Naples to Viterbo, where one of the leaders, Cardinal Reginald Pole, resided as Papal Delegate from 1541 to 1545. Pole, son of Richard and of Margaret of Salisbury, niece of the two Kings Edward IV. and Richard III., had been obliged to leave England in haste to escape from the wrath of Henry VIII., whose behavior towards Anne Boleyn he had dared to condemn. Paul III. made him a cardinal in 1536, and this extraordinary distinction conferred on the young prelate made King Henry so furious that he not only sent to the scaffold Pole's brother and mother (this last seventy-one years old), but promised a reward of fifty thousand scudi to anyone who would take the Cardinal's life.

Whether these particulars are absolutely correct or not, there is no doubt that he was the victim of more than one dastardly attempt; thrice at the hands of Italian, twice of English emissaries. Each of the Italians was pardoned in his turn by Pole: the Englishmen, however, were branded with hot iron and sent to jail.

The standpoint for the Reformists congregated at Viterbo in Cardinal Pole's palace, was the well-known doctrine of the "justification by faith," a doctrine which had been advocated in the conference of Ratisbon by the Catholic Delegate Contarini, as well as by the Protestant leader Melanchthon. Prominent among the sympathizers of Valdez in the meetings of Viterbo were Giulia Conzaga, Cardinal Morone, Alvise Priuli, Pietro Carnesecchi, and above all Fra Bernardino Occhino, the Capuchin: and it was only on account of the high social standing or of the high ecclesiastical position of the majority of them, that Rome did not take immediate steps to suppress the movement. The trials against Pole, Giulia and Vittoria, the minutes of which have been re-discovered and published by Manzoni and Corvisieri, took place only after their death. We cannot read those cruel and cool-blooded investigations into the private life of the venerable Cardinal and of the noble ladies without feeling a sense of revulsion against those ignorant and fanatic monks who dared to constitute themselves judges of such exemplary Christians. However, it was the spirit of the age, and the result of the war which was then raging between Rome and Spain on one side, England, France and Germany on the other.

I have been obliged to enter into these details because, without their knowledge, it would have been impossible for my reader to understand the mystery connected with the hasty burial and subsequent disappearance of Vittoria's body. The lady felt the first symptoms of the fatal malady in January 1547, while an inmate of the Convent of Sant' Anna de Funari, which then stood surrounded by the remains of the "Porticus Pompeianæ" (the gardens and colonnades attached to the theatre of Pompey the Great). As the case grew more alarming, and as fears rose about a fatal issue, Vittoria was removed to the palace of the Cesarini, her nearest kinsmen.<sup>4</sup> This palace still exists, although thoroughly modernized, and faces the Teatro Argentina on one side and the Piazza Strozzi on the other. Here she dictated and signed her will, containing among others the following clause: "I wish that soon after my death, the Abbess of the Convent (of Sant' Anna de Funari), where I have found hospitality lately, shall select my last resting-place, and shall bury my body in the monastic style." Vittoria died at the seventeenth hour of the twenty-fifth day of February, 1547.

Condivi gives a pathetic account of Michelangelo's last sight of her beloved face. "In particular, he greatly loved the Marchesa di Pescara, of whose divine spirit he was enamoured, being in return dearly beloved by her. He still preserves many of her letters breathing honorable and most tender affection. . . . He, for his part, loved her so that I remember to have heard him say that he regretted nothing except that, when he went to visit her upon the moment of her passage from this life, he did not kiss her forehead or her face, as he did kiss her hand. Her death was the cause that oftentimes he dwelt astonished, thinking of it, even as a man bereft of sense."<sup>5</sup>

The body was undoubtedly removed to the church of Sant' Anna, according to the clause of the will, but such was the cowardly fear which seized all those who had been in closer contact

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<sup>4</sup> Giulia Colonna, Vittoria's cousin, had married Giuliano Cesarini, the head of that powerful family.

<sup>5</sup> Translation of Christopher Hare, "The Ladies of the Italian Renaissance," p. 306.



with the deceased lady, lest the Inquisition should coinvolve them in the disgrace with which her memory was threatened, that the coffin was abandoned in a corner of the chapel, without any display of those impressive ceremonies with which the Catholic Church is wont to honor its dead. Every single one of the executors appointed by the will made himself scarce at that crucial moment. The abbess<sup>6</sup> and the nuns abandoned the chapel and withdrew to the most secluded part of their establishment, and even Cardinal Pole, I am sorry to say, renounced his "protectorship of the will" (*la protezione del Testamento*). Praise, then, be given to Lorenzo Bonorio, an old and faithful client of the Colonna, who dared to face the situation, and see that the wishes of his beloved mistress were carried into execution. His letters to Ascanio, the head of the family, contain the following details, by means of which we have been able to re-discover, after three and a half centuries, the missing remains of the Marchesa.

The body was enclosed in a wooden coffin *coated with tar*, and was left in this state on the floor of the church, against the left-hand side wall, until at least the fifteenth day of the following March. At that date Bonorio was still waiting for instructions from Ascanio Colonna, but they never came, as far as we know. Left to his own devices, he announces in a last letter that he had determined to have the coffin enclosed in an outer one, covered with black velvet, and to place them in a grave hollowed out of the side wall of the church, at the height of five or six feet above the floor. Were these plans carried into execution, or did something happen in the meantime which forced Bonorio to remove the remains to a place of safety?

When the church and convent of Sant' Anna de Funari were sentenced to disappear in 1887 to make room for the new Via Arenula,<sup>7</sup> the late Commendatore C. L. Visconti and myself were

<sup>6</sup> The name of this feeble abbess was donna Filippa. She had taken the place of donna Massimilla de Scipioni + June 18th, 1546, and governed the establishment till the end of 1550.

<sup>7</sup> The convent and church, originally called Santa Maria in Julia, were the headquarters in Rome of the Knight Templars. The Grand Master Jacopo della Molara in 1293 made a present of both to a pious woman from Gubbio, named donna Santuccia Terrebotti, the founder of a reformed order of Franciscan nuns, named from her the *Santuccie*.

commissioned by the City Council to watch the demolition of the edifice with the utmost care, in the hope that the remains of the Marchesa might be found in some remote place of concealment. Our vigilance, however, led to no results, and although every brick and stone was duly examined down to the level of the foundations, not only did we not come across the coffin coated with tar, but we found no grave at all. It is true that in consequence of a constitution of Pope Pius V., issued in 1569, all the bodies buried in churches *above* the level of the floor had been lowered, and, in many cases, thrown in the common foss under the nave: but considering that when these things happened, and this desecration of ancient graves took place, Marco Antonio Colonna, the own-nephew of Vittoria, was the hero of the day, that the laurels he had won at the battle of Lepanto were still fresh, that City and Pope alike were heaping upon him distinction upon distinction and privilege upon privilege, we cannot reconcile ourselves with the idea that the precious relics of his aunt should, just at that time, have been treated with contempt and thrown into the common "ossarium": and moreover such an act would have been against the canons of the Church itself.

Such being the case, there remained two alternatives to be taken into consideration: first, that the coffin had been secretly removed from Rome before or when the posthumous trial against the Marchesa was initiated by the Inquisition; secondly, that it had been concealed somewhere within the precincts of the cloisters of Sant' Anna. Our exploration of 1887 having shown that this was not the case, the attention of those who wished the problem solved, was directed to other cities, ancient fiefs of the Colonna, such as Marino, the birthplace of Vittoria; Paliano, the chief stronghold of the Connetable Ascanio, and so forth; but nowhere was obtained a clue. The merit of having found at last the original coffin coated with tar, and the authentic remains of Michelangelo's dearest friend, belongs to Dr. Bruto Amante, the well-known biographer of Giulia Conzaga. From his memoir, "*La Tomba di Vittoria Colonna*," published by Zanichelli at Bologna in 1896, I gather the following remarkable particulars. Starting from the consideration that Vittoria expresses more than once in



her poems the wish to be reunited to her beloved husband in their last resting-place; that the husband had been buried in the church of San Domenico Maggiore in the city of Naples, and that Naples was at the time of her death a much safer place from the grip of the Inquisition than Rome or Marino or Paliano, Dr. Amante began his investigations from the sacristy of the above-mentioned church which contains not less than forty-five coffins of illustrious members of the Neapolitan aristocracy, mostly from the house of Aragona. These coffins are located all round the walls, above the screens and wardrobes containing the sacred vessels and induements, in a sort of gallery or balcony of which the top of the wardrobes forms the floor. Here he singled out, much to his surprise, not one but two coffins inscribed with the name of the hero of the battle of Pavia. The higher of the two, very large, with a sword and a pennant nailed on the lid, bears the following epitaph:

(Here lies) *Ferdinand d'Avalos of Aquino, Marquess of Pescara.*

The lower and smaller one shows likewise the words, painted in black on a white scroll:

*Francis Ferdinand d'Avalos of Aquino, Marquess of Pescara, vicar general in Italy of His Majesty the Emperor, died in the year of our Lord one thousand five hundred and twenty-five.*

Dr. Amante was therefore confronted with two coffins belonging to the same individual, as proved by the sword and the pennant nailed on the first—the signs of a generalship—and by the precise date of 1525 inscribed on the other. There was only one way to solve the riddle, viz., to examine the contents of each. Having obtained leave from the Archbishop, as well as from the Minister of Public Instruction, and secured the help of several men of science, he opened first the lower and smaller of the two. There were the remains of an individual of the male sex, of middle size and age, with traces of dark hair on the skull. Such characteristics led them to believe that the legend of the scroll spoke the truth, and that the coffin really contained the remains of Vittoria's husband, who had died in 1525. Inside the upper one they found

the long-lost bier, coated with tar, with the skeleton of an individual of the female sex, about fifty years of age. The skeleton was still partially enveloped in a shroud of coarse linen, also besmeared with tar. A closer analysis of the contents revealed the fact that the woman had been laid to rest dressed in a shirt of the finest linen, with a lace collar fastened round the throat by three bands or lacings. The sleeves also were fringed with lace. There were traces of other articles of underwear which I find rather too technical to be described in a paper of this kind. The hair, unmistakably blonde, was covered by a silk hood. These particulars (and many others of lesser value) were registered in a legal deed, dated Dec. 9, 1894, and signed by Angelo Zuccarelli, professor of anthropology in the University of Naples; by Father Maiella, rector of San Domenico; by Signor di Maio, representative of the Minister of Public Instruction; by Dr. Amante, the discoverer, and other witnesses of repute.

I must acknowledge that the vague tradition of the transferment of Vittoria's body from Rome to Naples, and of her interment in one of the churches of that city, had never died out among the descendants of Ascanio Colonna: and the late Prince Don Giovanni Andrea, used to repeat over and over again, while Visconti and I were engaged in the fruitless search of 1887 at Sant' Anna de Funari, that we were wasting our time, because he knew that the body of his illustrious ancestor was to be found in Naples.

After the touching story I have related, the reader will probably think that the discovery of Vittoria's grave was welcomed with a thrill of enthusiasm from one extremity to the other of the Peninsula, that the Italian literary and historical societies celebrated the event in a manner befitting its importance, and that a monument to her, or maybe to both heroes of my story, should have been raised in the capital of modern Italy, and more precisely in that Piazza Arenula which occupies the site of the church and convent of Sant' Anna, demolished in 1887. None of these things have come to pass. The coffins of the most cultured lady and of the most valiant knight of the sixteenth century lie still half-forgotten in the sacristy of San Domenico Maggiore, and the site of the intended monument in the Piazza Arenula has been



usurped by the statue of a play-writer, whose name can hardly be known beyond the walls of his native city. It is really surprising how modern Rome seems to have lost the recollection of the august men and women to whom she owes her greatness. If we except the memorials raised in honor of the founders of modern Italy—Victor Emmanuel, Cavour, Garibaldi and Quintino Sella—which are beautiful and worthy of the great names they bear, all the other public squares of the city have been given up to monuments of outsiders of modest fame, or of no fame at all. The last of these memorials had actually so little *raison d'être* that—to avoid a hostile demonstration and a public scandal—it was unveiled by stealth at two o'clock in the morning and in the presence of only half-a-dozen policemen.

## THE EXHAUSTION OF THE WORLD'S METALS

N. S. SHALER

IT is evident that the economic side of human advance, as well as the greater part of the contriving foresight which characterizes it, depends upon the qualities of materials men turn to account. The story of adaptation of substances to desires did not begin with man. It is common among the bees and ants and divers other insects. We see it in the nests of birds, in the hot bed in which the brush turkey lays her eggs; these contrivings generally relate to utility alone, yet often the sense of beauty guides the construction so that the æsthetic as well as the utilitarian motives appear to exist in the minds of many highly developed animals and readily lead to the adaptation of outward things to the needs of the body and the mind.

It is interesting to note that the utilitarian motive is much less developed in the mammalian ancestry of man than in the insects or the birds. A distinct sign of it can be found only in the group of rodents, as in the beavers, but this order lies far aside from the series of animals from which our kind came up. It appears pretty certain that except possibly for the occasional use of a stick or stone as a rude tool wherewith to break a nut, or a huddle of branches placed in the fork of a tree to serve as a nest, none of our prehuman ancestors met their advancing needs by the use of the materials that might have served them. As soon, however, as the critical point between the brute and man was passed by, the new creature entered upon a realm in which the qualities of things were to satisfy its progressive desires and in the process enlarge its intelligence.

At first sight, there does not seem to be much difference between the way the monkey and the lowlier man uses the stick or stone to serve its immediate needs; but while the ape gives no evidence of judgment in any act, in the lowliest man judgment and constructive endeavor always appear to enter. The rudest stone tools now in use by the most primitive toiler are chosen with reference to shape and endurance. They are shaped with rude but ad-



vancing art, so that they may better serve their need, and speedily the æsthetic motive leads the man to endow them with beauty. Each of those early and simple conquests of nature leads to a sense of the powers of the outer world, so that even the lowliest savage becomes an inquirer in a true sense, a man of science exploring the world with his imagination of things possible, and verifying his conjectures by experiment.

This is not the place to set forth what little we know by the study of primitive tribes and our own children concerning the steps by which man won his way to the earlier conquests of the material world; how at every step in the earlier inquiry he was, by his exuberant fancy, continuously and irresistibly led away from the path of science into the wilderness of superstition, and how in the Greeks and their successors the better way was continued and affirmed. For our purpose we need see only that the truly experimental science of the savage and his barbarian successor led him afield, and that with the emancipation from superstition the extension of his journeys has become, so far as we can see, almost limitless. What concerns us now is the extent to which our civilizations have become dependent on the resources of the earth for their support or advancement, and how long the sphere is likely to endure the tax upon its store which the increasing numbers of mankind and their ever-growing demands are certain to make.

Putting aside, for the moment, the vast range in minor substances, such as precious stones as well as the other minerals which do not carry any important part of the functions of civilization, we find that the conditions essential to the maintenance and advance of civilized man are those relating to two fields of utility, one being the development and application of energy, the other the construction of vessels for the purpose of retaining and transporting substances. The last-named of these groups was the first to find a large place in the arts; long before men had managed to gain any access to natural forces they had learned to use the gourds, baskets, skin bags, vessels of pottery or hollowed wood for a great range of needs. The existence of the household and growth of economic foresight depends upon the invention of such

retaining vessels. This application of materials must always remain the most fundamentally important.

The history of retaining vessels shows that a successful and highly developed social economy is possible when they are made of baked clay, and, incidentally, of cloth. The best days of Greece and Rome did not know the can or barrel. In the time to come when, with the earth taxed to its utmost to support the population which may be expected with the abolition of pestilences and war, it will be possible, though not convenient, to dispense with the use of wood and metal for domestic and transportation uses, and to return to the classic earthenware. There is plenty of material to meet all possible demands for this purpose; clay suitable for such uses is found practically everywhere, and the amount of fuel necessary to bake it is relatively small. We may, therefore, regard the exhaustion of metals for this purpose as entirely evitable. As we shall see below, this limitation on the demand may, in a few centuries, be a matter of considerable consequence.

Of the supply of metallic substances needed for the generation and application of power, we find that in the present state of our arts there are two of cardinal importance, viz.: iron and copper, half a dozen of secondary yet great utility, lead, zinc, tin, mercury, gold and silver, and a number of others, such as nickel, which though most useful in the arts, do not materially effect the course of civilization. If any of these metals, except iron and copper, were by some accident to be transmuted tomorrow, it would be temporarily most inconvenient, but the world would in a generation or two adjust itself to the loss without serious hindrance to its activities. If gold were to disappear, we should for a time have grave trouble in our traffic, but its use is essentially a matter of custom and we should have to undergo only a change of custom. In the disappearance of the secondary metals, mercury would probably be the most serious loss, for it would be hard to replace it in our thermometers. Next to mercury, lead would be the most difficult to dispense with, for the reason that its qualities of weight and softness fit it as no other substance for use in small arm projectiles. But as war will surely disappear, and hunting



also, in the bettered earth of the future, we could contemplate these losses of quality with no great regret.

Seeing, as we do, that the mainstays of our existing civilization among the metals are iron and copper, let us note in what ways they are necessary and what are the conditions of demand and supply that may be anticipated. First, as regards iron, it may be said that almost from the beginning of its use it has been adopted as the prime metal of civilization. It is not unlikely that men gained their first notions concerning the properties of this metal through experiments with the masses of it that had fallen from the sky. These are so far pure that if heated and beaten they would disclose properties which would lead an intelligent barbarian to researches. He would easily see the evident likeness of these meteorites and many forms of iron ore, and with his skill already acquired in smelting the ores of copper, zinc, and tin, and in the simple furnaces that served him in such work he would readily find his way to producing the substance which, more than any other, has afforded his successor the means of dealing with nature.

More than any other metal, iron, and its slightly modified form known as steel, affords the combination of qualities needed in the application of power. It is at once hard, rigid, flexible, and tough, and has these features through a considerable range of variations which may be readily induced; in the form of pig-iron it is meltable at a temperature easily attained even in primitive furnaces, and can then be cast in moulds; in another variety it can when heated be shaped as desired to an engine shaft, a sword or a watch-spring. Not the least of its values consists in its cheapness; even with the primitive smelting apparatus, the cost of a pound of iron, because of the plentiful distribution of the ores and the ease with which they were mined, was probably not more than a fifth of the cost of a pound of the earlier used bronze. At the present time, the average costs are in the ratio of about twenty to one. As regards the relative utility of the two materials, the difference is in a far greater measure in favor of iron. A civilization in the age of Athens at its prime, or of India in the time of Christ, is possible with no more effective instruments than bronze affords.

It is doubtful if the Roman culture and conquests could have been shaped without the use of iron, and it is certain that our modern states, so far as they depend on their command of energy, could not have developed and perhaps cannot be maintained without the use of iron or some other metal that is thus fitted to serve in acquiring and applying power.

If we had now to reorganize our culture on the basis of iron at the ancient or even the lower modern cost of bronze, we should have to abandon much that might be termed necessary to our economic life; the most of our railways and steamships would be too costly for the services they render, great and seemingly indispensable as these are. A like reduction would have to be made in all our instruments by which we attack the resources of the earth, those of soil as well as mine. It is easy to imagine the shearing of our comforts and luxuries, and even of necessities, which such a change would involve. It is evident that the means of culture which the well-conditioned laborer now has in larger measure than the prince of a thousand years ago would be vastly reduced by such a change. Let us see whether such a need of readjustment is to be reckoned on in the centuries to come.

Iron, as is well known, is a very widely diffused element. In combination with oxygen and other substances it is found in most rocks. Because of the high specific gravity of the earth it is often stated that this metal must superabound in the deeper parts of the sphere; but there is no good reason for this notion, for the volcanic materials which presumably come from, at least, fifty miles below the surface, though they contain iron, do not indicate that the interior is peculiarly ferriferous. It is, moreover, not improbable that the infalling of meteors composed in large part of this metal has in the course of geologic ages considerably increased the store of it in the outer part of the sphere.

Because the oxides of iron are rather soluble in water containing  $\text{CO}_2$ , carbonic acid gas of common phrase, and because all the water moving on or in the crust contains enough of this gas to give it solving capacity, iron oxides undergo a continuous process of dissolving and are thereby diminished in the soil or porous rocks and concentrated in the lower strata. In this way they are gathered in



deposits below the decaying vegetation of swamps; they replace limestones that lie near the surface and sometimes come to form true veins. In most instances these processes of concentration do not go on at great depths beneath the surface, but are limited to the levels, where the rainwater has a chance to penetrate; usually much less than half a mile down. Thus, although there are probably instances where beds or veins of iron ores may be found at the deepest levels at which we may hope to win them at practicable cost, say at a depth of two miles or so, it may be assumed that the supply of the metal will have to come from less than half that distance below the surface. In this regard, the occurrence of minable deposits of iron ore differs from that of the other important metals, the most of which, though likely to be richest at no great depth beneath the surface, continue in the rocks downward indefinitely beyond the limits where they may be won.

Though the available iron ores are, as a whole, not to be reckoned on in great depths, and the store is thus much limited, their generally bedded nature and the great horizontal extension which comes from this arrangement affords an abundance of the material found in no other metalliferous deposits sought by the miner. The total amount of these minable iron ores, when their exploitation began, probably much exceeds all the other mineral deposits, excluding coal, that have been sought in the earth. The amount of these iron ores still available is very great, doubtless many times, perhaps twenty-fold, as great as has been won to use. Yet we see already that in the continent of Europe the fields long in service are beginning to be exhausted. Great Britain has practically consumed its store, which a century ago seemed ample. Practically all the supply for its furnaces is now imported. The supply from the Mediterranean, that promised to be inexhaustible, cannot endure for many decades to come. The same is the condition of the ore districts of Central Europe; at the rate of the increasing demand they are not likely to meet the demands of a hundred years. There remain extensive deposits of rich ores in the Scandinavian peninsula and in fields in the confines of Belgium and France which have hardly begun to be drawn upon, yet it is evident that at anything like the present rate of increase in the con-

sumption of metallic iron the European sources of supply are not likely to endure for a century.

In North America, the conditions are more promising for a long continuance of iron-production than in Europe. In the region east of the Appalachians, including New England and the maritime provinces, the originally rather scanty stores of the metal have, save in Nova Scotia, proved unprofitable sources of supply. It is evident that they may be left out of account in any reckonings of a large nature. On the Pacific slope, though our knowledge of the matter is less complete, it appears unlikely that the deposits have any considerable value in relation to the world supply. In the central district of the Cordilleras of North America, the scanty evidence as yet gathered, seems to indicate the promise of considerable bodies of iron ore, but the greater part of them lie far removed from coal of a quality suited to the operation of smelting, and, therefore, to be available, save for local use, only when the price of the metal is far higher than at present.

The best-placed field for the production of iron in North America or, save that in Northern China, in the world, is in the central section of the Mississippi Valley, mainly between the great river and the Appalachian system of mountains and northwards beyond the great lakes to the headwaters of the streams flowing into Hudson's Bay. As a whole, this area is not only exceptionally rich in iron ores, but the deposits lie near enough to coals of a quality suitable for smelting them. Save, as before mentioned, in China there is clearly no other region in the world where the physical conditions are, on the whole, so favorable for the cheap production of the metal and its ready transportation to the principal markets; it is a question, however, if the store will supply the demands of the future.

The more important iron ores of the central trough of North America may be roughly divided into two geological groups, those of the region to the north and west of the upper Great Lakes, and those of the region south of the Ohio. The Great Lakes group mainly consists of deposits contained in the older rocks, those which have been greatly altered by chemical changes, so that the original oxides of iron, probably once bedded, have been dis-



solved and reconstructed, with the result that they are now accumulated in masses of limited area of exceptional richness. When, some twenty years ago, these ores in the region about the shores of Lake Michigan began to be extensively developed, it was generally believed that the field was practically inexhaustible, that it would withstand for centuries any demand that could reasonably be expected. At the present time good judges are reckoning the longevity of these mines by decades. A conservative view of the situation is that at anything like the present output of the ores the existing production cannot well be maintained for fifty years. It is true that there is much unexplored territory hidden from the eager and keen-eyed scouts who have traversed the wilderness about the developed mines, but it seems altogether improbable that discoveries of unknown fields will be found sufficient to ten-fold the known ores of this region between the Great Lakes and the Arctic Circle. The geological features of the region make this reckoning almost certain; add to these considerations that the demand for these ores is rapidly increasing, and we are forced to the conclusion that this, the most promising field discovered in the last century, and, most likely, all things considered, the best ever to be found, will not continue its production for a century to come.

A similar story is to be told concerning the ores south of the Ohio, those which in Alabama, Tennessee, and southwestern Virginia, in the time of the swiftly developed iron industry of the Birmingham district, promised to revolutionize in future years the industry of this country. The greater part of these deposits are bedded mostly in the upper part of the Silurian system of rocks. Those beds belonging in the Clinton age consist of limestones which have been converted into iron ores by the downward leaching of the surface water, carrying iron oxides in solution in the manner before noted; when this carbonated water comes in contact with lime it lays down the iron oxide it contains, takes up lime, for which it has a greater affinity, and goes on its way. In this manner, in the course of time, all of the bed of limestone to which the rain-water finds access is converted into siderite, a carbonate of iron and lime in which the proportion of iron to the

other materials is rarely greater than thirty per cent. The further access of water and air to the deposit will in time remove a considerable part of the remaining lime and effect other changes which bring the mass into the condition of linonite, brown ore, or hæmatite, red ore, in the more concentrated forms of which the proportion of iron may be increased to from forty to sixty per cent. of the mass.

The bedded Clinton ores of the southern states have very generally been tilted by the mountain-building processes which have operated in that region, so that we have the deposits appearing at the surface, the beds plunging downwardly, and after the miner has followed them for, say, 1,000 feet, he is several hundred feet below the surface. When a bed of ore of a given thickness was found that in shallow pits yielded iron at the rate of forty per cent. or more of metal, the natural mistake was made that the deposit could be followed downwardly with like richness as far as mining skill could carry the openings. Experience has shown that as soon as the workings are extended much below the zone of movement of the rain-water the beds are found in their original condition of limestones; so that in place of a workable belt of some miles in width the limit of profit was found within a few thousand feet of the surface. The result is that the expectations concerning the Clinton field of the South which seemed to most observers, even to those who were fairly well informed, to be inexhaustible, have to be greatly reduced. In such measure, indeed, that the resources which were expected to endure for centuries cannot safely be reckoned on for more than half a hundred years. It may be conjectured by those who find comfort in mere possibilities that we know so little of the under-earth, even in our own relatively well-known land, that these reckonings are vain, and that surprises await us in the way of discoveries undreamt of. The uninstructed only will be inclined to make such guesses. It is a fact that all the iron fields of this country of sufficient importance to have a wide-reaching importance have been known for thirty years or more. Later knowledge has done no more than define their bounds. It is in a high measure improbable that within the limits of the United States any new fields of notable value remain to be discovered.



We know much less of the iron resources of the other continents than of Europe and America. The only other known field in any of them which promises a yield of general importance is that in China, where over a wide area there is evidence of iron ores along with good coal for smelting, and under conditions of climate and of labor which promise a cheaper product than has been obtained in any other district. This combination of resources is one of the several features which give the present struggle between Japan and Russia a world-wide meaning, for in their control depends in large measure the economic mastery of the Pacific Ocean. They are very soon to make China the manufacturing centre of that realm. If Russia commands the mineral stores of that kingdom she may find her way to master the world even more effectively than did Rome in her time.

As for the other parts of Asia and the continents of Australia, Africa, and South America, relatively little is known of their resources in the way of iron, save that owing to the prevailing lack of coal deposits fit for use in blast-furnaces, the ores here and there abundant cannot generally be made to serve except at much higher prices of the metal than now hold. As for the eventual product of these lands, we may make a rough reckoning in the assumption that, area for area, they are no richer and probably less rich, than Europe and North America. If we accept the conclusion that the iron ores of those lands are not likely to continue to be sources of large and cheap supply beyond the present century, we may fairly assume that the world, as a whole, will not have access to the metal at anything like the present cost in terms of labor which prevail at present.

It is not to be supposed that the iron age will suddenly pass away; its passage doubtless will be gradual. The deposits other than those of China which can produce iron at the present low labor cost will almost certainly be exhausted within one hundred years. Those of China may last for a similar term after they become the centre of a large industry. Then the cost of production will gradually increase as the lower grade ores and those remote from coal come into use. In the end we shall have to resort to concentrating processes by which the iron ore is separated from the

rock in which it is disseminated as grains. This upward grade in cost means a downward grade in the utility of the metal in the service of man. Finally, it may be some centuries from now, but surely we shall be forced to an economy in the use of the metal such as was exercised by folk two hundred years ago, when, save for what went down at sea, or rusted back to earth, none of it was lost to the arts. In this stage, when it becomes again a precious metal, iron may continue to be the helper of man for an indefinite period, but its power for help will be greatly diminished.

In the case of copper the outlook is much the same as with iron. The sources of supply are very much rarer and the total amount of the metal in the crust of the earth is probably not the thousandth-part of that of iron. Although it has been the object of close and well guided search through North America, and of innumerable essays in mining, there are no deposits of any importance now worked in the region east of the Rocky Mountains except on Lake Superior, and in the western district there are but two limited fields of considerable production, or even of much promise, within the bounds of the United States. And yet the Cordilleran system in North and South America is the region in which this metal appears to be most generally diffused and to exist in the largest aggregations. On the other continents we find a like sparsity of copper-bearing ores of the economic value of the present material. Only the Spanish mines of Europe are the seat of a considerable production; no Asiatic or African fields comparable to those of Lake Superior, Butte, or Arizona have been found, and in South America the only successful mines are in the central district of the Cordilleras. It appears that the supply of copper will be reduced to a point where its service to the arts will be seriously limited before there is a like reduction in the supply of iron. In the last-named metal there exists a considerable leeway in the saving that will be made in scrap material as soon as the price rises to, say, fifty dollars per ton; because of the present relatively high price, about two hundred dollars per ton, there is no savable loss in copper.

We can look upon the approaching exhaustion of the sources of copper supply with less apprehension than in the case of iron,



for the reason that useful as the metal is in manifold ways, it is not indispensable or even very necessary in our arts except in the transmission of electric power, and even then substitution is possible. Save for this use the economic world could soon adjust itself to the loss of this once indispensable metal.

Turning now to the question of the possible substitution for iron and copper, we find ourselves in face of the interesting problem of aluminum. This metal is in form of silicates, the base of all our clays, and of the feldspars from which they are mainly derived, as well as of many other common mineral species. Owing to the abundance of these materials, the amount of aluminum accessible to man provided he breaks up its union with silicon, which needs be done because the substance is never found in the metallic or unoxidized state, is perhaps some thousands of times as great as the iron contained in the concentrated form of beds or veins. Every clay bank is a possible source of the material. Great sections of the stratified rocks are in part composed of it, and all the feldspathic massive rocks, such as the typical granites, contain a like store of the metal.

In its qualities aluminum is admirably adapted to serve the greater part of the needs now served by iron and copper. It is relatively very light, but for its weight admirably strong, rigid, tough, and elastic; it is a good conductor of electricity; it does not oxidize or rust as readily as those metals. It meets practically all the uses of the constructive arts; it is better than steel for the greater number of them. In the hulls of ships it would spare a large part of the weight in the hulls and machinery, and would greatly increase the cargo-carrying power. We readily see that an aluminum age would carry us almost as far beyond that of iron as we advanced when that metal replaced bronze in the mechanic arts. Why, then, as we have learned how to separate this admirable substance from its union with oxygen, may we not extend its use, thereby dismissing all fears that our successors of the centuries to come are to lack a fit share of the metals necessary for economic success?

To comprehend the economic situation of aluminum we have to note that though the metal has long been known and a great deal of experiment has been devoted to cheapening the cost of pro-

ducing it, an inevitable difficulty in obtaining it from ordinary clays is encountered in the firmness of the grip which the atoms of silicon have upon those of the metal in the compound. To pull these units apart and to send those of silicon on some other errand than a union with the aluminum atoms, requires an amount of energy in the form of heat and a combination of the ores with other materials very many times greater than is required to do like work with the oxides of iron. The result is that so far as this process has yet attained, the cost in terms of power incurred in making a ton of aluminum are, under the most favorable circumstances, very much greater than in the case of a like amount of metallic iron. It may be granted that future improvements of the process of winning the material will much reduce the cost of its production. The fact that within fifty years the market price of aluminum has been reduced to about one-tenth of what it was favors this supposition. Yet we have to bear in mind the fundamental difficulty that it requires many times as much energy in the form of heat to part the other atoms from the metal as it does in the case of iron, and that so far as we can see the work has practically to be done in electric furnaces on a small scale and with steps that entail a large amount of labor. He would be a confident man who on the basis of computation looked forward to a time when aluminum could be economically produced on a large scale for less than two hundred dollars per ton.

To bring the cost of aluminum down to, say, ten times that of pig-iron, and to produce it on a scale in any important measure to compete with iron, even at double its present price, it will be necessary to reduce the cost of electric power to a small fraction of the present cost of production. This can probably be done, for there are innumerable places where great water powers are unused which can be turned to this account at a cost, perhaps, not more than one-tenth of what it would be if won from coal. This, however, will meet but a part of the difficulty, for the aluminum-bearing ores rarely occur in such quantity and purity that they may be directly used in a furnace, and in this condition are much less extensively developed than those of iron. Moreover, we do not as yet know how to win them from ordinary clays. Thus with any methods



now conceivable we have to reckon that while aluminum is likely in time to take the dominant place now held by iron, it will do so at a cost in terms of labor far higher than what men now pay for their capital metal. Nevertheless, the difference is not likely to be so great that the mechanical foundations of our economic civilization will be endangered.

As for the other metals now in use, gold is of most popular interest. Its place in the public mind and in the peculiar work of measuring exchanges is no gauge of its essential value. The metal has not a single property that makes it necessary in the mechanic arts, and its special delegated work in measuring values could be accomplished by other agents. In the course of the present century it may be necessary to seek other means of effecting such measurements. There is a large quantity of gold accessible in this world at about the cost in terms of labor which exists at present. The metal is very widely diffused not only in the earth, but in the waters of the sea as well. The processes of mining it are constantly increasing in efficiency and decreasing in cost per unit of the material won. There is little doubt that these changes, by adding to the store of gold beyond the needs of civilization, are even now depreciating the metal, and the effect is shown in the rise of prices of things for which it is exchanged; a rise which in face of lessened costs of production can only be accounted for by the excessive supply of the agent of exchange.

As the use of gold in ways that lead to its loss are not extensive, the gain in the world's store of it is going forward so rapidly that, considering the contributions from the land alone, it seems likely that we shall, within a few decades, contrive some other means of measuring values than by the ancient device of balancing them against a substance of which the supply is excessive.

Should the much-talked-of method of winning gold from seawater by any contrivance prove economically successful, the increase in the stock of the metal might quickly become so great as to break down its value as money. The effect would be speedier than that attendant on the increase in the quantity of silver in the world's store due to the development of the Comstock and other American mines about twenty years ago. Fortunately for the

convenience of man, it seems unlikely that a process of obtaining gold from sea-water at a profit will not be contrived. While we have little trustworthy information concerning the supply of this gold, or the state in which it exists in the water, it appears unlikely that it ever amounts to more than about five cents' worth in a cubic metre, and there is no way known in which it can be won at anything like that cost.

Silver, the noble companion of gold in the work of measuring the goods of men, is now a forlorn element, a very pauper among the metals. At any price at which it can be produced, it is valueless in the arts. What station it retains is due to sentimental considerations which are likely soon to pass away. In a century, save for the use as fractional currency, it is likely to be quite neglected; it is, therefore, not necessary to consider the question of its supply in the time to come.

Lead, as before noted, has its largest use in small projectiles—it is to be hoped an evitable use. It is, however, serviceable as a basis for various solders and as an agent in joining sections of metal pipes—as well as for making an objectionable group of paints. If war is to be continued for a century to come at the rate of the past century, it is likely that the stores of lead ores will be seriously trenched upon. Although it occurs in very numerous areas, in many countries, and in a great variety of geological formations, it is rarely found in extensive deposits, so that the mines producing it are generally soon exhausted. Thus fifty years ago there were seats of large production east of the Mississippi or near its banks; at the present time the amount produced in that region is insignificant. Moreover, until the recent fall in the price of silver, lead has been largely a by-product obtained in mining the more precious metal under conditions which would not otherwise have admitted of its being mined.

Tin has a singular place in the mechanic arts; it is but little used by itself, but serves mainly to give a coating to iron, thereby preventing rust. The distribution of this metal is peculiar. So far, though the search for it has been well carried on, it has been found in profitable quantities only in Eurasia and the Australian realm. It occurs here and there in the Americas, but it has never re-



warded continuous mining. The evidence is clearly to the effect that it cannot long be supplied in quantities or at a price which will render it serviceable in the arts. It is not likely that it will hold its place through this century. Zinc is possibly more important than tin; it serves a variety of uses as sheet metal as well as a coating of iron to avoid rusting; it is also in an oxidized form of decided value as a paint, but in all these services to the arts it is replaceable by other metals. The distribution of its ores is wide and their abundance considerable. They are found to a great extent in veins which hold their contents of the metal in the extreme depth of mining work. The general conditions point to the conclusion that this substance is one of the last of the underground values to be exhausted. Yet, as it is mainly to be won as a by-product of silver, lead, etc., the duration of the supply is probably dependent upon the production of these metals.

Among the minor metals of special and important value, irreplaceable in the arts so far as we can see, there are those which give the forecaster concern. Mercury is imperatively needed in mirrors and in a wide range of scientific instruments such as thermometers and barometers, as well as in the processes of amalgamation by which the greater part of the gold supply is won from ores. This metal is scantily and peculiarly distributed. There are less than a half-dozen places in the world where it is known to occur in sufficient quantities to repay the miner, and none of these deposits give promise of long endurance. It is, indeed, likely that the first important deprivation to be encountered in the approaching exhaustion of metallic stores will be of this substance. A like apprehension is due in the case of platinum. This metal is peculiarly necessary to the chemist, as it alone has the needed resistance at once to heat and acids, such as is required in a large part of his laboratory experiments, as well as in some processes of manufacturing. Thorium, which serves in the manufacturing of the "mantles" of incandescences for lamps, as well as sundry other substances needed in particular arts, are about as unpromising for the future as those above mentioned, but they need no further mention because it is likely that they may be replaced, or, at the worst, the deprivation will not be serious if they are lost to the arts.

Of the earth substances which afford other than metallic products, the number is so great that they cannot all be considered here. Perhaps the most important of these, for it touches on a host of common arts, is sulphur, which, as is well known, finds its most important use as sulphuric acid. This mineral comes to our hands from two sources, in the shape of the yellow mineral of the name, and in larger share from what is familiarly known as iron pyrite. To one or the other of these sources, we have to turn for the acid which is indispensable in a host of the arts that are linked in the chain of our economic civilization. It is even more indispensable than any of the metals except iron. What, then, is the chance of its supply being maintained?

The future of the supply of sulphur is tolerably certain. In all active volcanic districts there is a constant expulsion of sulphur vapors which form deposits that after the period of activity can be mined; in this and yet other ways the supply of the mineral in the native form is provided. Again, and more importantly, it is produced from iron pyrite, a compound of sulphur and iron. This pyrite is of very general occurrence in the form of distinct veins and as crystals of the material scattered through rocks of all ages; the facts, in a word, point to the conclusion that of all the earth products which are useful in the arts, sulphuric acid will be one of the last to be exhausted.

Nitrates, the source of nitric acid and the basis of gunpowder and hardly second to sulphur in importance, rest on a more unstable basis of earth resources than any other. They exist in certain very limited fields of nitrate of soda, which can readily be converted into nitrate of potash, "saltpetre." These nitrates are very soluble, and the chance of finding them in commercial quantities, except in recent deposits formed in desert countries, is small. The situation, however, is hopeful for the reason that the greater part of the air is composed of nitrogen, and though we have not learned how to convert it into serviceable form, we may trust our good helpers, the chemists, to learn how the bacteria do the work and apply that or some other method to the task.

There are many other earth substances helpful to man in his present economic estate, and many others will find their place in



the arts. The substances that have been mentioned in this incomplete review are, so far as we can discover, the most important for the continued success of human endeavors. Some of these, as, for instance, the radium group, come just now trooping out of the dark—out of the great mystery of this seemingly commonplace world. What share they are to have in human events is not clear; yet because of our considerable knowledge of the materials of the earth which exist in considerable quantities, we may fairly reckon that the discoveries which await us are of rare elements and combinations, not, in many instances, likely, because of their small quantity, to prove of great economic value.

Beneath all these reckonings is the ancient question as to the transmutability of the elements. Shall we be able in time to find some way by which one of them can be transformed into another? To this there is, as yet, no final answer, but all our knowledge points to the conclusion that even if an atom be actually changeable in nature, such is the persistency with which it clings to the shape in which we find it that it is idle to hope for conditions where the alteration can be accomplished in a way to serve our needs. We have to accept the hypothesis of unchangeable elements as a basis for our economic concepts of the earth and be thankful for the large gifts they bring, confident that the spirit of man may win his needs from the great store.

# GEOLOGICAL HISTORY OF THE GREAT LAKES AND NIAGARA FALLS

WARREN UPHAM

**T**HE Great Lakes, as this term is commonly used in the United States, comprise the five lakes, Superior, Michigan, Huron, Erie, and Ontario, and their outflow forms the River St. Lawrence. They have therefore been called collectively the Laurentian Lakes. Niagara River and Falls, and also Lake Champlain, shared in the same remarkable geological history.

In the Glacial Period or Ice Age, the latest completed period in the long geological record, a vast ice-sheet, similar to the present ice-sheet of Greenland, but of far greater extent, was amassed over the entire drainage area of these Laurentian Lakes, and over nearly all of the northern half of this continent. From its central tract of greatest altitude, the white snow surface, covering the deep ice, sloped slowly down on all sides, reaching on the south to Long Island, to Northern New Jersey and Pennsylvania, and almost to the Ohio River, which it crossed for a short distance in the vicinity of Cincinnati, while, on the southwest, the thin ice margin, at its time of greatest extension, covered the present course of the Missouri River. When the Laurentian Lakes were formed, in the closing part of the Glacial Period, they were more extended and deeper than now, because the retreating ice border was a temporary barrier to the present courses of outflow; and in tracing their old beaches and eroded shore-lines, it is found that the highest and earliest of them generally have a slight ascent northward, while the lower and later beaches have little or no ascent, showing that the glaciated area was moderately uplifted during the departure of the ice.

Another glacial lake of great extent, named Lake Agassiz, was formed in the basin of the Red River of the North and of Lake Winnipeg. It shows a similar northward ascent of its shore-lines, which have been mapped along distances of hundreds of miles in Minnesota, North Dakota, and Manitoba.



Well-marked old channels of outflow are found extending southward, across the present watersheds, at the levels of the deserted beaches. The outlets prove that the great water-bodies which occupied these basins were lakes, not gulfs or arms of the sea; and the differential uplifts of the basins, increasing toward the central part of the area of the continental ice-sheet, show that no land barriers, but the ice itself in its retreat, held in these lakes on their northward sides.

The basin of the St. Lawrence, during the glacial recession, held successively, and in part contemporaneously, no less than eight important glacial lakes, distinguished by their different areas, heights, and places of outlet. They are named the Western Superior and Western Erie glacial lakes; Lake Warren, the most extensive, into which the two foregoing were merged; Lake Algonquin, the successor of Lake Warren in the basins of Lakes Huron, Michigan, and Superior; Lake Lundy, the glacial representative of Lake Erie; Lake Iroquois, in the basin of Lake Ontario; Lake Hudson-Champlain; and Lake St. Lawrence, into which the two last-named became merged.

#### THE WESTERN SUPERIOR GLACIAL LAKE.

In the west part of the basin of Lake Superior, the receding ice-sheet held a lake which outflowed southward through Northwestern Wisconsin, across the present watershed between the Bois Brulé and St. Croix Rivers. The highest shore-line of this lake at Duluth is 535 feet above Lake Superior (which has a mean level 602 feet above the sea); and the latest and lowest of its beaches, occupied by the boulevard or pleasure driveway on the bluffs back of the city of Duluth, is 475 feet above the lake.

Not long after the northeastward retreat of the ice border passed Marquette, this lake was lowered and merged with Lake Warren across the lowlands of the northern peninsula of Michigan. The vertical interval between the final stage of the Western Superior Lake and the level of Lake Warren as shown by its earliest beach at Duluth was about sixty feet. Thenceforward the outlet of Lake Warren beyond Chicago carried away the drainage from the glacial melting and rainfall of the Superior Basin.

## THE WESTERN ERIE GLACIAL LAKE.

Outflowing from the southwestern end of the Erie Basin by a large channel, which reaches from Fort Wayne, Ind., where the St. Joseph's and St. Mary's Rivers unite to form the Maumee, across the present watershed to the Wabash River, this glacial lake formed two distinct beaches, named by N. H. Winchell the Van Wert and Leipsic Ridges, which are separated by a vertical interval of 15 to 20 or 25 feet. The upper or Van Wert Beach, with its crest varying in altitude from 200 to 220 feet above Lake Erie (whose mean height is 573 feet above the sea), extends about 75 miles east to Findlay, Ohio, and nearly an equal distance northeast past Bryan, Ohio, to the vicinity of Adrian, Mich. While the lake was making this beach at Findlay it was bounded on the northeast by the ice-sheet then forming the Blanchard moraine.

With the recession of the ice-sheet, a lower outlet was opened over the watershed between the Shiawassee and Grand Rivers in Michigan, 729 feet above the sea, where the Western Erie glacial lake became confluent with Lake Warren, and was thus reduced about 30 feet, falling from the Leipsic, or lower Western Erie Beach, to the Belmore, or earliest beach of Lake Warren in the Erie Basin.

Upon a large area, extending from Fort Wayne east to Cleveland, and northward to Ypsilanti and Detroit, the altitude, or general slopes and levels of the land, have remained unchanged since the departure of the ice-sheet, for these earliest beaches are still nearly horizontal. The whole country there, however, was uplifted, without tilting, about 110 feet, after the end of the separate existence of the Western Erie lake. This is the height of the Belmore Beach around the west end of Lake Erie above the highest and earliest beach of Lake Warren at Chicago. Further, we learn that about half of the uplift of 110 feet for this region had occurred before the beginning of Lake Algonquin and the formation of Algonquin Beach, since that beach, near the south end of Lake Huron, has a height of 602 feet above sea level. This is 60 feet higher than the correlative sublacustrine terrace plane beneath the



surface of Lake Michigan near Chicago, which there marks the old Algonquin shore.

#### LAKE WARREN.

Lake Warren at first occupied only the southern end of the basin of Lake Michigan. It grew northward as the ice-sheet retired, and in time received the Western Superior and Western Erie glacial lakes to itself, expanding thus into the basins of Lakes Superior, Huron, and Erie. The maximum development of Lake Warren stretched from Thomson, Minn., above and west of Duluth, eastward to Lake Nipissing, a distance of nearly 600 miles; and from Chicago, where it flowed to the Des Plaines, Illinois, and Mississippi Rivers, it extended eastward across the southern peninsula of Michigan, and later, by way of the Strait of Mackinaw and over Lakes Huron, St. Clair, and Erie, to the west end of the Lake Ontario Basin, and to Crittenden in Southwestern New York. This area exceeded 100,000 square miles, more than the present combined areas of these Great Lakes.

In the vicinity of Chicago, Lake Warren formed three beaches, belonging to lake levels successively about 45 to 50 feet, 15 feet, and 30 feet above Lake Michigan. The beach at 30 feet was formed after that at 15 feet, as is shown by the occurrence in some places of a peat deposit, described by Andrews and Leverett, which passes underneath the 30-foot beach and is continuous from its upper side down to the lower beach. The peat marks a land surface, over which the lake rose to form the middle or third beach, after having stood at the lower or second beach for some time. Movements of differential elevation, between the times of formation of the second and third beaches, slightly lifted the outlet and adjacent portion of the course of the Des Plaines River, as compared with the southern and southwestern part of the Lake Michigan Basin, and caused the old lake to extend a little farther on that side.

Three beaches of Lake Warren, named the Ridgeway, Arkona, and Forest beaches, mapped by Spencer, are respectively in Ohio, Southeastern Michigan, and the Province of Ontario, north of Lake Erie. These probably represent the three beaches

at Chicago and about the south part of Lake Michigan. Farther north, the number of distinct shore-lines is much increased. In and near Duluth, I found eight beaches referable to Lake Warren, the lowest being fifty feet above Lake Superior. On northern portions of the Lake Superior coast, several of these seem, as shown by Lawson's observations with leveling, to be each represented by two or more shores, separated by vertical intervals of ten feet or more. Most of the northern beaches, it should be remarked, are very feebly developed, even in the most favorable places for their formation, and are not discernible along the far greater part of the lake borders. During all the time of the differential uplift of the Lake Warren Basin and the sinking of the water surface, whenever the diminishing lacustrine area was nearly unchanged for a few years or longer, the erosion and deposition effected by the great waves of storms and the tribute of streams forming deltas recorded these shore-lines.

#### LAKE ALGONQUIN.

When the glacial melting and retreat at length permitted an outflow from the St. Lawrence Basin over a lower pass, which was through Central New York to the Mohawk and Hudson, the water surface of the basins of Lakes Michigan, Huron, and Superior fell only some 50 or 75 feet, from the last and lowest stage of Lake Warren to its short-lived successor, Lake Algonquin. This lake appears to have been ice-dammed only at low places on its east side, namely, at or near the heads of the Trent and Mat-tawa Rivers, lying respectively east of Lakes Simcoe and Nipissing, where its waters must have been somewhat further lowered in order to outflow by these passes. Careful study and comparison of the work of Spencer in tracing the Algonquin Beach, about the southern part of Lake Huron and Georgian Bay, with Taylor's exploration of the Nipissing Beach from Duluth east along the south coast of Lake Superior and the north side of Lake Huron and Georgian Bay to Lake Nipissing, convince me that these beaches were of contemporaneous formation, marking respectively the southern and northern shores of Lake Algonquin, and therefore are both, according to the law of pri-



ority, to be known by the name Algonquin Beach, given by Spencer. The earliest and principal stage of Lake Algonquin is shown by these beaches to have coincided closely in area with Lakes Michigan and Superior, but to have extended farther eastward than the present Lake Huron and Georgian Bay.

The Algonquin Beach at the south end of Lake Huron coincides very closely with the land surface there, and with the present St. Clair and Detroit Rivers, by which the earliest outflow of this glacial lake probably passed southward, and thence ran east as a glacial River Erie, at first tributary to Lake Lundy. As soon as that very short-lived lake was drained away, the river followed the lowest part of the shallow bed of the present Lake Erie along its whole extent, which then had an eastward descent of probably 200 feet, allowing no lake, or only a very small one, to exist in the deepest depression of the basin. North of Buffalo it coincided with the course of the Niagara River.

Gilbert, Wright, and Spencer have thought that for a long time the outflow of the three great lakes above Lake Erie passed by the way of Lake Nipissing to the Mattawa and Ottawa Rivers. It seems to me far more probable, however, that the uplift of the Nipissing region, which had already been elevated about 400 feet during the existence of Lake Warren, continued so fast that both the Trent and Nipissing-Mattawa Passes were raised the additional 50 feet necessary to place them above the level of Lake Algonquin, before the glacial retreat uncovered the country east of them and made outlets possible there. The size of the Niagara River has, according to this view, never been less than it is now.

#### LAKE LUNDY.

From the Forest Beach at Crittenden, Erie County, New York, marking the latest level of Lake Warren, there is a descent of 125 feet, that is, between the levels of 860 and 735 feet above the sea, to the earliest strand of the glacial Lake Lundy, which, for a time, occupied the northeastern three-fourths of the Erie Basin. A more conspicuous Lundy Beach, 30 feet lower, is followed by the ridge road named Lundy Lane, near Niagara Falls. This lake opened into the Ontario Basin through a strait about 30

miles wide. Its outflow passed eastward, across the country just north of the Finger Lakes in Central New York, to the Mohawk and Hudson Valleys, still partly filled by the receding ice-sheet and permitting a series of mouths of Lake Lundy to be found at successively lower levels, until, as the ice border withdrew, the water sank to the lowest point of the Ontario-Mohawk watershed at Rome, New York, where its level remained for a long time.

#### LAKE IROQUOIS.

This glacial lake, outflowing at Rome, occupied less area in the west part of the Ontario Basin during its earlier stage than later, when the high Iroquois Beach in that region was formed. Before the western development of the Iroquois Beach, the early water level, as compared with the altitude which the land then held in that part of the lake basin, stood for a long time lower than the present Lake Ontario at Toronto and Scarboro Heights, six to fifteen miles east of Toronto. This is shown by the occurrence of fossil fresh-water mollusks of about 40 species, wood, and leaves, in beds described by Coleman, which are from 41 feet below to 60 feet above Lake Ontario, or 206 to 307 feet above the sea. All the mollusk species are now living; but a few are restricted, so far as known, to waters tributary to the Mississippi. These beds rest on glacial drift, and are overlain by later glacial deposits; but the climatic conditions of that time, clearly indicated by the fauna and flora, were as mild as they are now. Fossiliferous delta deposits, belonging to a cooler climate, were next spread several miles eastward along the lake-cliff section of Scarboro Heights, attaining a depth of 154 feet; and repeated readvances of the ice-front afterward formed, at the locality last noted, four distinct deposits of till, or boulder-clay, separated by thick beds of stratified sand. Later there was a gradual rise of this western part of the lake, due to an uplifting of the country about its outlet at Rome, until it stood at the level of the well-defined Iroquois Beach, which has a height at Toronto of about 200 feet above Lake Ontario.

In a limited sense, the Toronto and Scarboro fossils may be called interglacial, since they lie between formations of glacial drift; but the overlying till deposits seem to me referable to mod-



erate oscillations of the ice boundary, rather than to distinct glacial epochs. Both these beds and the richly fossiliferous Leda clays, which overlie the latest glacial drift in the St. Lawrence, Ottawa, and Champlain Valleys, may be referred to the closing stage, or Champlain epoch, of the Ice Age; and they both testify, like the partially forest-covered Malaspina ice-sheet in Alaska, to the close sequence of a warm climate, with luxuriant plant and animal life, during and immediately after the recession of the ice-sheet. The transition from the Glacial to the Champlain climate may be readily explained by the depression of the land from the high altitude to which it had been uplifted before the Ice Age, causing its severe climate and abundant snowfall.

The height of Lake Ontario is 247 feet, and that of the old Iroquois outlet crossing the watershed at Rome is 440 feet, above the sea level. Thence the Iroquois Beach, in its course northward and adjacent to the eastern end of Lake Ontario, has a gradual ascent of about five feet per mile along a distance of 55 miles to the latitude of Watertown, where the highest beach is 730 feet above the sea, showing that there had been a differential uplift of about 290 feet.

As the area of Lakes Warren and Algonquin was differentially elevated during their earlier existence, the Ontario Basin, farther east, was gradually raised and tilted upward to the north and east, while the lake level, holding constant and without important downward cutting at the outlet, inscribed many shore-lines on the slowly moving land. All the movement throughout the whole region was probably upward; but the eastern position of the outlet, and the fact that its area rose more than did the western parts of the basin during the existence of Lake Iroquois, caused the old beaches, originally level, to have declining gradients toward the west and south.

#### LAKE HUDSON-CHAMPLAIN.

The absence of marine fossils in beds overlying the glacial drift on the shores of Southern New England, Long Island, and New Jersey, and the watercourses which extend from the terminal moraine on Long Island southward across the adjacent mod-

ified drift plain, and which continue beneath the sea level of the Great South Bay and other bays between the shore and its bordering long beaches, prove that when the ice-sheet extended to its farthest limit this coast stood higher than it does now. A measure of this elevation of the seaboard in the vicinity of New York during the Champlain epoch is supplied, as I believe, by the shallow submarine channel of the Hudson, which has been traced by the soundings of the Coast Survey from about 12 miles off Sandy Hook to a distance of about 90 miles southeastward. This submerged channel, lying between the present mouth of the Hudson and the very deep submarine fjord of this river, ranges from 10 to 15 fathoms in depth, with an average width of one and one-fourth miles, along its extent of 80 miles, the depth being measured from the top of its banks, which, with the adjacent sea-bed, are covered by 15 to 40 fathoms of water, increasing southeastward with the slope of this margin of the continental plateau. During the whole, or a considerable part, of the time of the glacial Lake Iroquois, this area, stretching 100 miles southeastward from New York, was probably a land surface, across which the Hudson flowed with a slight descent to the sea. But northward from the present mouth of the Hudson, the land at that time stood lower than now; and the amount of its depression, beginning near the City of New York and increasing from south to north, was nearly 180 feet at West Point, 275 feet at Catskill, and 340 feet at Albany and Schenectady, as is shown by terraces and deltas of the glacial Lake Hudson-Champlain, which were formed before this long and narrow lake became merged in the glacial Lake St. Lawrence. From these figures, however, we must subtract the amount of descent of the Hudson River, which in its channel outside the present harbor of New York may have been 50 or 60 feet along its length of about 100 miles.

According to the observations of Davis, Baldwin, and Baron de Geer, the highest shore-line of Lake Hudson-Champlain is now elevated to about 275 feet above the sea at Catskill, N. Y.; 550 feet at Chesterfield, N. Y., on the west side of Lake Champlain opposite Burlington, Vt.; and 658 feet at St. Albans, Vt. Assuming that the mouth of the lake, near New York City, was



50 feet above the sea, the differential northward uplift of the originally level shore has been at the rate of about two feet per mile for the 110 miles from the present mouth of the Hudson to Catskill; one foot and seven-tenths per mile for the next 160 miles north to Chesterfield; and about three and a half feet per mile in the next 30 miles northeastward to St. Albans. Perhaps a higher beach may exist in Chesterfield, which would bring these gradients nearer to uniformity.

#### LAKE ST. LAWRENCE.

The records of the Glacial and Champlain epochs in the St. Lawrence Valley were most fully studied by Sir William Dawson, to whose work we are chiefly indebted for detailed descriptions of the evidences of the marine submergence of that region to a maximum height at Montreal of a little more than 500 feet above the present sea level. Before the occupation of this depressed broad valley by the sea, it was filled from Lake Ontario to near Quebec by a great glacial lake, held on its northeast side by the receding continental ice-sheet. The directions of the glacial striæ and transportation of the drift in the St. Lawrence Valley, running southwestward at Montreal and onward to the Great Lakes, but eastward from Quebec down the shores of the Gulf of St. Lawrence, and southeast across Nova Scotia and New Brunswick, show that the latest remnant of the ice barrier blockading this valley was melted away in the neighborhood of Quebec, admitting the sea to a large, low region westward. Until this barrier was removed, a glacial lake, which for convenience of description is designated as the Lake St. Lawrence, dating from the confluence of Lakes Iroquois and Hudson-Champlain, and growing northward and eastward, spread over the Ottawa Valley, probably to the mouth of the Mattawa, and down the St. Lawrence as fast as the ice-front receded.

When Lake Iroquois ceased to outflow at Rome, and, after intervening stages of outlets existing for a short time at successively lower levels north of the Adirondacks, began to occupy the Champlain Basin and the St. Lawrence Valley northward, changing thus to the Lake St. Lawrence, its surface fell by these

stages about 250 feet to the glacial Lake Hudson-Champlain, which had doubtless reached northward nearly to the St. Lawrence. After this reduction the water-body in the Ontario Basin still had a depth of about 150 feet more than the present mouth of Lake Ontario, as is shown by a beach, traced by Gilbert, which thence rises northeastward, declining toward the south and southwest. Its plane, which is nearly parallel with the higher Iroquois beaches, sinks to the present lake level near Oswego, N. Y. To the southwestward the old shore line at this lower stage has since been submerged by Lake Ontario. The Niagara River was then longer than it is now, and the lower part of its extent has become covered by the present lake. From the time of the union of Lakes Iroquois and Hudson-Champlain, a strait, at first about 150 feet deep, but later probably diminished on account of the rise of the land to a depth of about 50 feet, joined the broad expanse of water in the Ontario Basin with the larger expanse in the St. Lawrence and Ottawa Valleys and the basin of Lake Champlain. At the subsequent time of ingress of the sea past Quebec, the level of Lake St. Lawrence fell probably 50 feet or less to the ocean level. The place of the glacial lake so far westward as the Thousand Islands was then taken by the sea as is shown by the marine fauna preserved in the Leda clays and Saxicava sands.

#### THE CHAMPLAIN MARINE SUBMERGENCE.

That the land northward from Boston was lower while the ice-sheet was being melted away, is proved by the occurrence of fossil mollusks of far northern range, including *Leda arctica*, which is now found living only in the Arctic seas, preferring localities which receive muddy streams from existing glaciers and from the Greenland ice-sheet. This species is plentiful in the stratified clays resting on the till in the St. Lawrence Valley, and in New Brunswick and Maine, extending southward to Portsmouth, N. H. But it is known that the land was elevated from this depression to its present height before the sea about here became warm and the southern mollusks, which exist as colonies in the Gulf of St. Lawrence, could migrate thither; for these south-



ern species are not included in the extensive lists of the fossil fauna found in the beds overlying the glacial drift.

In the St. Lawrence Basin these marine deposits reach to the southern end of Lake Champlain, to Ogdensburgh and Brockville, and at least to Pembroke and Allumette Island, in the Ottawa River, about 75 miles above the city of Ottawa. The isthmus of Chiegnecto, connecting Nova Scotia with New Brunswick, was submerged, and the sea extended 50 to 100 miles up the valleys of the chief rivers of Maine and New Brunswick. The uplift of this region from the Champlain sea level was 10 to 25 feet in the vicinity of Boston and northeastward to Cape Ann; about 150 feet near Portsmouth, N. H.; from 150 to about 300 feet along the coast of Maine and southern New Brunswick; about 40 feet on the northwestern shore of Nova Scotia; thence increasing westward to 200 feet in the Bay of Chaleurs, 375 feet in the St. Lawrence Valley opposite the Saguenay, and about 560 feet at Montreal; 150 to 400 or 500 feet, increasing from south to north, along the basin of Lake Champlain; about 275 feet at Ogdensburgh, and 450 feet near the city of Ottawa.

The differential elevation was practically completed, as is known from the boreal character of the Champlain marine molluscan fauna, shortly after the departure of the ice-sheet. With the areas of the great glacial lakes in the interior of the continent, this coastal region gives testimony of a wavelike elevation of the formerly ice-laden portion of the earth's crust, proportionate with the glacial melting, and closely following the retreat of the ice from its boundaries of greatest extent inward to the areas on which its waning remnants lingered.

#### NIAGARA FALLS AS A CHRONOMETER.

The chief geological interest of the Niagara gorge and falls is that they afford a means for computing the duration of time since the Ice Age; and an approximate determination of the length of this post-glacial period aids to unlock the difficult problem of the age of the earth. Geology knows the ratios of the lengths of its periods and eras, which, if the length of this latest period

can be learned, will supply the approximate duration of all the geologic ages.

At the little village of St. David's, about two and a half miles west from the mouth of the gorge, the Niagara limestone escarpment is broadly indented for a width of more than a mile by a pre-glacial stream valley, which extends southeastward about one and a half miles in the direction of the Whirlpool. At its head, this old valley is filled up to the level of the adjoining country with drift deposits, consisting of gravel, sand and underlying till.

The continuation of the pre-glacial channel, although at this present water divide it is filled and concealed by the glacial drift, is revealed about one and a half miles farther southeast by the ravine of Bowman Creek, and especially by the deep basin of the Whirlpool where only the drift forms its northwest side, in remarkable contrast with the inclosing rock walls of the Niagara gorge. Professor C. H. Hitchcock informs me that nearly all the drift which fills the old channel is boulder-clay or till, laid down during successive stages of the Glacial Period.

In the careful studies of Pohlman and Gilbert, as in the earlier observations of Lyell and Hall, the coincidence of the post-glacial Niagara Gorge with the pre-glacial St. David's Channel at the Whirlpool is clearly recognized. The present river here has washed out the drift that filled the ancient channel and apparently reached to the bottom of the Whirlpool, about 130 feet above the sea. Thence the pre-glacial St. David's stream bed, beneath the drift, has probably this depth of 117 feet below the level of Lake Ontario and along its course past St. David's and onward to the deep central part of the lake basin.

Immediately after the melting of this southern part of the ice-sheet and the withdrawal of the ice-dammed Lake Warren, the Niagara River began to erode its gorge, and it has continued in this work, under varying conditions, to the present time. It found a passage along the course of the gorge to Lewiston lower than the course of the pre-glacial channel, deeply drift-covered, between the Whirlpool and St. David's.

Accurate maps of the crest-line of the Falls were made by Hall in 1842, by the United States Lake Survey in 1875, by Wood-



ward in 1886, and by Kibbe in 1890. It is thus ascertained that in the forty-eight years following the first survey, the lengthening of the gorge, by the recession of the central part of the Horseshoe or Canadian Falls, was 270 feet, an average yearly rate of five and a half feet. But the central curve or apex of the cataract has worn back much faster than its sides, because the maximum depth of the river is fully twenty feet at its centre and there makes a plunge of not merely the 160 feet from the verge to the surface of the water at the foot of the fall, but of nearly 200 feet lower to the bottom of the river, working thus most effectively to undermine the horizontal rock strata and break down the thick limestone at the top. The entire extent of the Horseshoe Fall is found, by these surveys, to be worn away at an average yearly rate of about two feet; but during the four years from 1886 to 1890 the average annual rate of erosion was five feet. Along the more shallow American Fall, northeast of Goat Island, the mean yearly erosion is about two-thirds of a foot, but from 1886 to 1890 it averaged one and two-thirds feet. The energy of this part of the Niagara cataract is not sufficient to remove the huge fallen blocks of limestone, on which the water strikes at the base of the precipice.

Only the centre of the Horseshoe Falls plunges deeply into the river beneath, and its concentrated and intensified erosion tends at present to lengthen the gorge beyond its normal rate of about three or four feet a year. With such average erosion, the falls and prolongation of the gorge would recede one mile in about 1,500 years; and the action of the great cataract along the two miles of deep water south of the railway bridges must have begun a thousand years before the Christian era. The entire erosion of the six and a half miles of gorge between Lewiston and the present falls has required about 10,000 years. But this period has been diminished probably a third, to 7,000 years, by the pre-glacial erosion of the St. David's stream above the Whirlpool, and of its northeast tributary, which coincided with the course of the Niagara below the Whirlpool. Another condition that shortened the period of the gorge erosion was the greatly increased supply of water which was received from the melting

ice-sheet at the beginning of the existence of the Niagara River, and which continued probably through many centuries. We may place the age of the gorge, in round numbers, between 5,000 and 10,000 years, which is also the duration of the period since the end of the Ice Age, or, speaking more definitely, since the retreat of the continental glacier from the northern United States and Canada.

If the post-glacial time was 7,000 years, we may estimate that in accordance with the ratios of the relative duration of preceding geologic periods and eras, the whole Quaternary era, including the Ice Age, was about twenty times longer, 150,000 years. The Tertiary era appears, by the changes of its marine molluscan faunas, to have been much longer, having comprised probably three to five million years; and the very long preceding eras since life began on the earth may have included, as estimated by Dana, Walcott, and others, about one hundred or two hundred million years.

#### THE FUTURE OF NIAGARA AND THE UPPER LAKES.

The earliest discussions of the recession of Niagara Falls led to apprehension of danger and disaster, because the continuance of the present gorge erosion must eventually extend to Lake Erie, the reservoir whence the river flows. It was thought, therefore, in the excited imagination of many ignorant readers, when the early geologic discussions of the history of Niagara were published, that a destructive flood would thus be let loose from Erie and the upper lakes, and would deluge the Ontario Basin and the St. Lawrence Valley. Professor James Hall, in 1843, endeavored to allay these fears. The increasing southward dip of the rock strata between the present falls and Lake Erie will cause the Niagara to cut into softer and easily eroded beds along that distance, so that its great cataract, which depends on the thick and hard Niagara limestone overlying soft shale, can no longer be maintained. The river will then run, as Hall declared, in a series of rapids along its course from Lake Erie to Lewiston, with perhaps a low fall at the outlet of the lake. He further wrote: "The views which have been entertained of the sudden drainage



of this or any of the upper lakes, and a deluging of the country on the north and east, are no longer considered as tenable by any one; and even if Lake Erie should be drained suddenly, it would cause no deluge of any importance."

Another anxiety has been raised more recently by computations of a probable tilting of the land, which would slightly change its inclination on all the region of these Great Lakes so that ultimately the mouth of Lake Erie would be lifted higher than the very low water divide close to the southwest of Chicago. The Niagara cataract would then be left dry, and the outflow of all the lake basins above Ontario would pass, as during the existence of the glacial Lake Warren, to the Des Plaines, Illinois, and Mississippi rivers. Spencer, in 1894, computed that the land tilting will thus divert the drainage about 5,000 or 6,000 years hence, and that this will take place before the gorge erosion can reach Lake Erie.

From computations of the heights of bench marks above the surface of the lakes, determined at successive dates separated by periods of from twenty to thirty-seven years, Gilbert computed in 1898 that this lake region is being tilted toward the south-southwest at the rate, during a century, of five inches in a hundred miles. He therefore concludes that Lake Michigan, if such tilting continues, will begin to overflow across the natural watershed to the Illinois River within 1,000 years; that 2,000 years from now this flow will take away half of the volume of the Niagara River; and that after 3,500 years there will be no Niagara. The basin of Lake Erie would then be tributary to Lake Huron, the current of the Detroit and St. Clair Rivers being reversed.

If all these changes should take place, however, there can be no doubt that the harbors and waterways, including canals, which now receive the vast and growing commerce of Buffalo, Cleveland, Toledo, Detroit, Chicago, Milwaukee, Duluth and Superior, and the many other cities and towns on these lakes, will still be maintained in full utility. We may feel confident that the largest city of this area, Chicago, although it is mainly built on land only a little above the level of Lake Michigan, will not be inundated. A drainage canal leading to the Des Plaines River has been cut

down below the lake level, and it needs only to be enlarged in order to carry the whole outflow of these lakes and to preserve unchanged the water level at Chicago.

The present very slow tilting of this region is a continuation of a great and far extended differential uplift which has taken place during late glacial and post-glacial time. The vast country that had been ice-covered and depressed under the weight of the thick continental ice-sheet was gradually uplifted during the removal of the ice burden to a greater height at the north than at the south. While Lakes Agassiz and Warren still existed, the northern parts of their areas were raised 300 to 400 feet above their southern outlets.

Both North America and Europe have experienced great differential movements during and since the Ice Age. From their high pre-glacial elevation, the ice-enveloped lands sank beneath the weight of the snows of many thousand years; and the warmer climate thereby produced on the boundaries of the ice-sheets melted them away. The sea then overspread the borders of the depressed lands. But closely attending and following the retreat of the melting ice border, a general re-elevation, varied in some regions by oscillations of uplift, ensuing depression, and renewed uplift, has brought the glaciated areas to their present altitude, which will probably be permanent for the greater portion of these areas.

The basin of Hudson Bay is shown, by Dr. Robert Bell's observations, to be slowly rising at the rate of a few feet in a century. On the Atlantic coast, from Boston to Cape Breton Island, where the re-elevation from the Champlain depression ranged upward to a maximum of about 300 feet in Maine, a movement of opposite direction has lately taken place, and is very slowly in progress, near the head of the Bay of Fundy, at a maximum rate of at least 80 feet. In southern Sweden the Champlain depression was succeeded during the retreat of the ice-sheet by re-elevation of the land somewhat above its present height; it was then depressed less than before, and from this second depression it is now slowly rising at a maximum rate of two or three feet in a hundred years.

These notes of the continuance of the great Quaternary movements of the continental areas which suffered glaciation are pre-



sented for the purpose of directing attention to their inconstancy, oscillations, and reversals. From the consideration of these well-ascertained continental changes, it seems to me that the evidence of very slight tilting of the Laurentian Lakes region now taking place, as made known by surveys of precise leveling which give comparisons of dates less than forty years apart, cannot support predictions of impending changes in the course of drainage from these Great Lakes, which will turn their outflow away from the Niagara River to the old glacial Chicago outlet 2,000 to 3,000 years hence.

#### THE MENACE OF UTILIZATION OF WATER POWER.

A more imminent peril than that to come possibly by geologic changes, turning the upper lakes to flow to the Mississippi, is the utilization of Niagara River for water power, which can be transmuted into electric power and carried away by copper wires for short or long distances. During a day in the spring of 1848, the bed of this river above the falls was left nearly dry, because an ice gorge shut back the outflow of Lake Erie; but now, for transportation and manufacturing purposes, it is threatened that the whole magnificent river and falls shall be taken away to turn water wheels. Thence, by a most wonderful transmutation, the mighty river would go in electric currents near and far, and be used on trolley railways and in factories.

Will it not be incomparably better and nobler that, instead of this mercantile and sordid perversion of Niagara, we should preserve its majestic rapids and cataract? Already commercial greed has appropriated about a quarter-part of the water formerly flowing over the falls. This desecration should be stopped. The State of New York and the Province of Ontario ought now to decree that no more of this vast water power shall be taken for pecuniary gain, but that Niagara Falls shall be kept for the people's enjoyment and instruction, better possessions than material wealth.

## TERRORISM IN RUSSIA

VLADIMIR G. SIMKHOVITCH

A FRENCH writer once characterized the Russian form of government as despotism tempered by assassination. Russian history records a great many political assassinations. Catherine the Second's lover and his friends killed her husband, Peter III; and Catherine generously rewarded the perpetrators of the crime. Alexander I waited in his room while the other conspirators were strangling his own father, Emperor Paul I. But nobody could say that Catherine II or Alexander I were terrorists. It is therefore obvious that the conceptions of political assassination and of terrorism are not identical.

The annals of Russian revolution recount some political murders which cannot be classed as terroristic deeds. Such were the assassinations of spies, who, pretending to be revolutionists, became acquainted with all the members of a revolutionary group and sold their names to the government. Whole revolutionary organizations, scores of men and women, have been wiped out by a single agent. The revolutionists therefore assassinated two or three such spies, justifying their action on grounds of self-defence. A spy named Tavleyeff was killed, 1876, in Odessa; and in the same year an attempt was made by Leo Deutsch and his associates to kill the spy Gorinovitch; in 1877 the spy Finogenoff was murdered in St. Petersburg. There was nothing demonstrative about these murders. The deeds themselves had no political character, although they were committed by revolutionists; and in this respect they differ from the manifestations of revolutionary terrorism, inaugurated by the fatal shot fired at General Trepoff by Vera Zassulitch.

It is really impossible to understand the psychology of Russian terrorism without carefully studying the Zassulitch trial. It gives us the very keynote of the terroristic activity of 1878-1881 as well as that of our own days.

Simple everyday events of Russian life led up to the tragedy of July 13th (25th new style), 1877, when a terrible execution



took place in the House of Detention at St. Petersburg. General Trepoff, who was the St. Petersburg chief of police (Gradonatchalnik) and a favorite of Emperor Alexander II, visited the cells where a number of men and women were detained for taking part in a political parade before the Kazan Cathedral. Among them was a young gentleman named Bogolyuboff. When General Trepoff entered his cell, Bogolyuboff did not bow to the general, whereupon the general hit Bogolyuboff in the face. The prisoner, who naturally resented such treatment, tried to answer in kind, but was prevented by the jailers. Trepoff, who thus himself invited insubordination, decided to have his revenge, and ordered Bogolyuboff to be flogged publicly in the courtyard. Moreover, as the subsequent trial of Vera Zassulitch disclosed, a theatrical scene of refined cruelty was arranged and enacted by Trepoff. Under the windows and in full view of the female political prisoners the rods were carefully prepared, and then for some time the use of the rods and of the flogging-bench was pantomimically exhibited for the benefit of the women prisoners. After the mimic rehearsals were over, the actual performance took place. Bogolyuboff was dragged down to the place of execution. He was stripped, and all that took place was visible to the inmates of the prison. The counting of the strokes and the groans arising not from physical pain, but from the outraged soul of the tortured man, were heard throughout the House of Detention. The prisoners could not stand it. They instinctively felt that the only way they could protest against such horrors of their prison life, and attract public attention, was to create disorder, curse Trepoff aloud, and break the windows and the furniture in their cells. Thereupon all the prisoners were treated in an even more brutal way than Bogolyuboff. Men and women alike were flogged and beaten into insensibility, many of them suffering bodily injuries. What happened behind the prison-walls leaked out. Public opinion was aroused and the Vice-Procurator Zhukovski was ordered to make an investigation. On August 27th he sent in his report, establishing criminal brutality on the part of the prison administration, and recommending criminal proceedings against all prison authorities involved in the affair. But General Trepoff, whose

orders the prison authorities had faithfully followed, suppressed the report of the Vice-Procurator, and consequently the matter dropped and was forgotten till the shot fired by Vera Zassulitch again brought the case to public attention.

On January 28th, 1878, Vera Zassulitch waited on General Trepoff in his reception-room, fired one shot at the general, threw her revolver on the floor and awaited arrest. She declared when arrested that she had shot and wounded the general for flogging Bogolyuboff. Was Bogolyuboff her personal friend, or was General Trepoff her personal enemy? Neither. The investigation established that she had never seen either of them in her life.

What, then, were her motives, and what did she strive to accomplish by shooting the general? This question is fundamental not only for the sake of historical accuracy, but because it throws light upon revolutionary psychology, upon the psychology of the Russian terrorists, their past as well as their recent deeds. But first a few words about the famous trial.

Notwithstanding the fact that Alexander II introduced a modern court of law and the jury system, the government handled all political cases either arbitrarily, *i.e.*, "administratively," when it had no proofs, but mere suspicions of the prisoner's guilt, or it submitted such cases for trial before a special tribunal, selected by the government and the findings of the court of law were thus decidedly influenced by the wishes of the administration.

The shooting and the wounding of General Trepoff, the chief of the St. Petersburg police, created a great sensation. The criminal intent and the guilt of the would-be murderess was plain and could not be denied. There was wide public interest in the personality of the revolutionist. Count Pahlen, the favorite Minister of Alexander II, felt, therefore, that it would be good policy to submit this case to a regular court, since the findings of a secret special tribunal could not possibly pacify, but would only enhance the irritation of the general public. Count Pahlen personally vouched for a verdict of "guilty" and a severe sentence, and the Czar reluctantly agreed to submit the case to a regular court of law and a selected jury.

The jury was carefully chosen. Of the twelve men that were



to sit in the jury-box four were Aulic councillors; there was a collegiate councillor, a titular councillor, a collegiate registrar, an artist, an assistant to the Director of the Demidoff Asylum, a scientist, a provincial nobleman, and an honorary citizen of St. Petersburg. This highly respectable body of citizens tried the famous case. The presiding judge, before whom the case was brought, Judge Koni, later Senator Koni, is generally regarded throughout Russia as the country's most able jurist.

But it was of no avail. The forebodings of Alexander II were justified: the character of no Russian police official could stand the test of a true court of law. And fortune used General Trepoff very badly. He was known throughout St. Petersburg not only for his exceptional brutality, but as a virtuoso in the art of graft and blackmail, who had amassed in a comparatively short time fabulous fortunes.

All such rumors or inside information, while they did not influence the court, influenced public opinion; but the life-history of the woman accused of so serious a crime unquestionably did influence the court. It had been clearly established that she never was a revolutionist and that she had never belonged to any anti-governmental organization whatsoever. Nevertheless, previous to her shooting of Trepoff she had spent twelve years in various prisons and in exile.

Vera Zassulitch, of noble birth and a daughter of a captain in His Majesty's service, was a pupil in a Moscow high school for girls, and at the age of sixteen made the acquaintance of a certain Mlle. Netchayeff, another school-girl. She later became acquainted with Mlle. Netchayeff's brother, M. Netchayeff, who was then a student. Netchayeff asked Vera Zassulitch, on one occasion, to take charge of a few letters which might be addressed to him, and she readily assented, since Netchayeff was then neither known nor even suspected of being a revolutionist. She soon after entirely lost track of Netchayeff, who had become a revolutionist and government suspect. The government discovered that at one time, while a school-girl, Vera Zassulitch had known Netchayeff, and that she had received a few letters for him. She therefore became a "suspected" person, and from the age of

eighteen to twenty was kept in the Litovski prison and in the dreaded dungeons of the Peter-Paul Fortress.

Monsieur Alexandroff, who defended Vera Zassulitch, characterized the effect of these two years in solitary confinement in the following words: "The time between the eighteenth and the twentieth year—these are the years of youth when childhood ceases; when impressions lasting for life are most powerful; when life itself appears yet spotless and pure. For the maiden it is the most beautiful time—the time of budding love—when the girl rises to the fuller consciousness of womanhood, the time of fanciful reverie and enthusiasm, the time to which, in later days, as a mother and a matron, her thoughts still fondly revert. Gentlemen of the jury! You know in the company of what friends Vera Zassulitch had to pass her best years. The walls of a dungeon were her companions. For two years she saw neither mother, nor relations, nor friends. Sometimes she heard that her mother had come and had given a message of greeting. That was all she was allowed to learn. Locked up without occupation within the walls of a prison! . . . Far, far away from everything human! Nothing there to nourish the feelings of friendship and love; nothing but the sympathy created by the knowledge that, to the right and to the left, there were fellow-sufferers passing their wretched days in the same way. . . . Thus it was, that in the depth of her solitude there arose in Vera Zassulitch such warm-hearted sympathy for every political prisoner, and every political convict became for her a spiritual comrade, to whom she assigned a place in the experience and the impressions of her past life."

Not a shadow of a proof, nor even a substantial, tangible, well-based suspicion, could be found against Vera Zassulitch. She was twice submitted to a searching examination and was finally set free after two years of solitary confinement. She returned immediately to her mother, and was physically and mentally in a terrible condition. She and her mother made hasty preparations to depart for the country, where she might recuperate. But just ten days after she was released a policeman appeared in her house. He came to rearrest her!

Vera Zassulitch could not believe it; she thought there must



be some mistake. She could not understand how a despotic government could be so foolishly cruel. But her protests were of no avail, and she was again thrown into prison. After spending some time there she was exiled to the little town of Krestzy, where she lived under special police supervision and was made to shift for herself. At the moment of her arrest she was given no opportunity to change her clothing, and she went away with but a single rouble in her pocket, a little box of chocolates and a French book. Some good people later came to her help. No sooner, however, did she establish herself in her place of exile than she was again arrested and exiled to Tver. The same story repeated itself in Tver, from which she was exiled to Soligalitch, and from there to Kharkoff. Twelve years she thus spent in dungeons, and in forced migrations from one place of exile to another. During these twelve long years she was never put before a court; she never knew the reason for her arrest, and at her trial the police authorities could give no coherent statement of what she was guilty or even of what she was suspected.

When she was finally freed at the age of twenty-nine, she came to St. Petersburg and there read in a newspaper, the *Novoye Vremya*, of what had happened to Bogolyuboff. She had never heard his name, and had never seen Trepoff. She remembered her own terrible persecutions and wondered why the public or the press did not see to it that the outraged honor of the sufferer was avenged and his reputation restored.

But the public as well as the press were in fetters; no protest followed, and the affair was on the verge of being forgotten. Then it was that she asked herself in the words of her counsel, "Is there no voice that can break through the ghastly silence, so that all may hear it? Can nothing be done to awaken the public conscience?" She felt that she must be that voice. She decided to attract the attention of the public by shooting at General Trepoff.

Vera Zassulitch, when asked whether she wanted to plead "guilty," answered affirmatively, and was obviously perfectly indifferent to the consequences of her deed. But not so the public. The public was aroused. The St. Petersburg men and women of fashion, generals, ladies-in-waiting, and courtiers, were horrified by

the disclosures, and the sympathies of the whole public were emphatically on the side of Vera Zassulitch.

The charge of Judge Koni was remarkably fair, leaving the question of guilt entirely to the consciences of the jury. And the jury—the twelve councillors, noblemen—after a very short deliberation brought in the unanimous verdict of “Not Guilty.”

Such a verdict in a case where the defendant pleaded “guilty” may be regarded as strange, but one must remember that even in the English law in all issues involved in the verdict of “not guilty” the jury is and always has been the judge of the *law* as well as of the facts.

But no sooner was Vera Zassulitch set free than, on leaving the court, her cab was surrounded by policemen and gendarmes, who tried to rearrest her. There was a fight between the public and the police; shots were fired; a relation of Vera Zassulitch, Gregory Sidoratski, was killed; others were wounded. But Vera Zassulitch escaped.

Shortly after the trial the Emperor removed General Trepoff from office, because, it is said, proof was adduced that the wounded General had in a short time accumulated graft to the amount of not less than 3,000,000 roubles.

Political cases have never again been submitted to a true court of law and a jury. But the special secret courts have been all the busier, as well as the administrative officers who have since dispensed justice to political suspects and offenders.

The shot fired by Vera Zassulitch was the signal that inaugurated an era of terrorism. The first terroristic actions came from above. Count Pahlen was removed for having suggested a regular court for Vera Zassulitch. Nabokoff was ordered to “clean up” the department of justice. It was a house-cleaning which Russia will never forget. From that time on no legal obstacles were to stand in the way of the extermination of all real or imaginary revolutionists. In 1879 not less than sixteen were hanged and scores were exiled, sentenced to forced labor in the Siberian mines, entombed in the dreaded dungeons of the Fortresses of Sts. Peter and Paul and Schliesselburg. The persons suspected of belonging to the revolutionary movement were outlawed.



The government went so far in its terroristic policy as to hang a man—a wealthy nobleman, Dimitri Lizogub,—because he was suspected of giving money to revolutionary causes. Lizogub took no active part in the revolutionary movement, and the government did not accuse him of it; but His Majesty's government was anxious to know what Lizogub did with his large income. The suspicion arose that some of the money was destined to help the cause of revolution, which then, in 1878, meant a peaceful propaganda. Even this petty accusation could not be proved; nevertheless, Dimitri Lizogub was sentenced to death and the sentence was carried out August 9th, 1879. Many similar cases could be quoted. Even police officials who fanatically hated Russian revolutionists were always ready to acknowledge that hundreds of perfectly innocent men and women were thrown into dungeons or sent to Siberia. Their plea was that it is difficult to distinguish between those who are guilty and those who are not. These innocent sufferers were persons who happened to be acquainted with real or supposed revolutionists, who had had harmless correspondence with men whom the government suspected of being revolutionists, or they were persons who innocently lent money to people who afterwards, without their knowledge or consent, used it for revolutionary purposes. Thus was bloody terrorism inaugurated—inaugurated from *above* by His Majesty's government.

While the government was hanging, banishing, branding men and women, school-boys and school-girls not yet out of their 'teens, the verdict of the Vera Zassulitch jury was still ringing in the ears of revolutionary Russia. Did not even the judge in his charge, while regretting the shooting, practically acknowledge that Vera Zassulitch had a moral right to break the silence? His charge was to the effect that if the accused wished to raise a question of public importance, her object might have been attained by a mere insult against the person of General Trepoff. Did not the public of St. Petersburg, men and women of the highest circles not excepted, declare themselves in perfect sympathy with the act of Vera Zassulitch?

The famous German jurist, Franz von Holtzendorff, wrote in

1878 of the Zassulitch case: "In spite of the contrast with the existing law, the verdict has received the approval of the whole of the Russian press, of the upper classes, even of the circles of Russian jurists. I have had personal occasion to convince myself that prominent officials of the Russian Empire applauded the verdict."

This is the secret and the keystone to the psychology of terrorism. Human society is more or less the same everywhere; public opinion has about as much power in a despotically ruled country as in a free commonwealth. Did the actions of the self-constituted vigilance committees have any legal status in California during the early days? Were not their so-called sentences from a legal point of view plain murder? Yet public opinion, since the law of the land could not be enforced, sanctioned the acts of those vigilance committees. But if such a committee, in an excess of zeal, had destroyed the lives of a few peaceful and honest citizens—it would have unquestionably met with a different reception on the part of public opinion. Something like this took place in Russia. It was obvious from the actions of the government that the so-called "law" was not protecting anybody who was really or even suspected of being dissatisfied with the autocratic form of government; and public opinion, unable to exonerate legally, sanctioned deeds of violence, which it would have abhorred under all other circumstances. Without grave injustice on the part of the government, and without the support of public opinion, revolutionary terrorism could not even be imagined.

First of all, terroristic actions on the part of revolutionists have carried in themselves not only elements of vengeance, but also elements of propaganda. It was, of course, clear to all revolutionists that Russian freedom was a question of numerical strength. Any deed committed by the terrorists that would shock the public meant the reduction of their forces and the strengthening of the autocratic régime. We know the reactionary effect produced by the murder of Emperor Alexander II. All liberal-minded Russians were ready to admit that the faults of the end of his reign were grave; but they were terribly shocked by the crime—and terrorism disappeared. But the reactionary reign of Alex-



ander III did not stamp out terrorism. The reign of Alexander III cannot compare in severity with the reign of Nicholas II under Plehve. Terrorism, as a social movement, cannot exist without the sanction of public opinion; it cannot exist where hundreds are not ready to take the place of the one revolutionist who has fallen. Terroristic deeds do not play into the hands of reaction when they are sure not only of being exonerated by public opinion, but also of stimulating and revolutionizing the masses of the people. It took the Russian public twenty years to forget that the revolutionists destroyed the life of a czar, who with all his faults, worked and fought hard for the abolition of serfdom, and introduced institutions which, however imperfect, carry in themselves the seeds of Russia's future greatness.

There is an unwritten chapter in the history of Russian culture and Russia's social psychology. It is the reign of Alexander III, characterized by a literature and a moral philosophy of its own. It is a literature of despair, it is a philosophy of non-resistance to evil, of resignation to suffer without protest. Was it cowardice? No. It was moral depth, and moral heroism. There was a cheap and easy way of getting out of unpleasant situations—Russian society and literature could easily repudiate the deed of the regicides, for which indeed they were not responsible. But instead, a man like Turgenyeff characterized Sofie Perovski, the soul of the terrorist executive committee, as a saint; and Turgenyeff had indeed a right to speak for intellectual Russia. At the same time, however, thinking and feeling Russia distinctly made up its mind that such deeds should never occur again.

The reign of Alexander III was far from gentle; it was a reign of obscurantism and reaction; but the people suffered silently. The reign of Nicholas II was in no way an improvement upon the reign of his "never-to-be-forgotten father"; finally the people of Russia could stand it no longer. No redress could be found against crying wrongs; humble protests against the intolerable situation were answered by exile, by flogging, by shooting. And, as in 1878, demonstrative shooting and killing of particularly cruel officials, of especially hated oppressors of Russia, began to meet with approval and even enthusiasm throughout the land.

When, at a banquet, 485 reputable engineers and captains of industry honor the name of Plehve's assassin by rising from their seats and describing him in their speeches as a hero in the strife for liberty, then it is high time for His Majesty's government to bethink itself.

Korobchevski, the famous St. Petersburg lawyer, who defended Sozonoff, Plehve's assassin, before the specially appointed tribunal, characterized Plehve and Sozonoff as follows: "Plehve insisted upon the hanging of Belmasheff; he buried in dungeons and sent to exile thousands of innocent men; he flogged and shot the peasantry and the workingmen; he insulted the educated classes; he planned the massacres of the Jews in Kishineff and Homel; he strangled Finland to death; he persecuted the Poles; he helped to bring about the present war, that has already cost so much Russian blood. . . . All this one can read in black on white in foreign publications. And while living abroad Sozonoff, in a state of revolutionary ecstasy, heard of nothing else, thought of nothing else but of Plehve. He could think of him only as a fatal, terrible nightmare upon the breast of his suffocating mother-country. It was impossible for Sozonoff to think of him in any other way than as a monster, who could only be removed by another monster—murder. . . . That is why, when he took in his trembling hands the bomb designed for Plehve, he believed, he ardently believed, that it was not filled with dynamite and fulminating mercury, but with tears, the grief and misery of the people; and with the sound of the exploding bomb he heard the bursting and breaking and falling of chains—the chains of enslaved Russia. . . ."

Here the presiding judge interrupted, threatening to order the lawyer from the courtroom. But Korobchevski concluded his plea:

"I am finishing. That is what Sozonoff thought. . . . That is why no sooner had Sozonoff regained consciousness than he exclaimed in ecstasy, 'Long live liberty.'"

And yet, as any rational man outside of Russia will probably acknowledge, Plehve was only a strenuous, clever, and faithful servant of the autocratic system. He was cruel, he was unscrupu-



lous, he had blood on his hands. Yet he committed all of his wrongs in his capacity as chief representative of the "System," not for any personal pleasure. Plehve was put out of the way, yet a massacre of unarmed men, women, and children took place on the streets of St. Petersburg. Plehve was dead, but Russian autocracy, Russian despotism, was alive; and despotism means violence in one form or another.

Just as the Russian autocratic system is legally responsible for the doings of a Plehve, a Sipyagin, a Prince Obolenski, a Governor Bogdanovitch, a Grand Duke Sergius, so is Russian society, Russian public opinion, morally responsible for the deeds of those terrorists who have taken justice in their own hands.

A quarter of a century ago Turgenyeff wrote this little poem in prose:

"I see a huge building, in the front wall a narrow door, which is wide open; beyond it stretches a dismal darkness. Before the high threshold stands a girl—a Russian girl.

"The impenetrable darkness is breathing frost, and with the icy breeze from the depth of the building a slow, hollow voice is coming.

" 'O! you who would cross the threshold, do you know what awaits you?'

" 'I know,' answers the girl.

" 'Cold, hunger, hatred, derision, contempt, insults, prison, suffering, even death?'

" 'I know it.'

" 'Complete isolation, alienation from all?'

" 'I know it. I am ready. I will bear all sorrow and miseries.'

" 'Not only if inflicted by enemies, but by kindred and friends?'

" 'Yes, even by them.'

" 'Well, are you ready for self-annihilation?'

" 'Yes.'

" 'For anonymous self-annihilation? You shall die, and nobody—nobody shall know even whose memory is to be honored.'

" 'I ask for neither gratitude nor pity. I ask for no renown.'

“ ‘ Are you ready for a crime? ’

“ The girl bent her head. ‘ I am ready even for a crime.’

“ The voice paused a while before renewing its questioning.

“ ‘ Do you know,’ it said at last, ‘ that you may lose your faith in what you now believe; that you may come to feel that you were mistaken, and have lost your young life in vain? ’

“ ‘ I know that also. Nevertheless I will enter.’

“ ‘ Enter then! ’

“ The girl crossed the threshold, and a heavy curtain fell behind her.

“ ‘ A fool! ’ gnashed someone outside.

“ ‘ A saint! ’ answered a voice from somewhere.”

That was twenty-five years ago. A terrible change has since taken place. What appealed to the heart and pen of a Turgeneff, the individual personality, became an object worthy of Vereshchagin’s brush—a battlefield.

And there has been a great change even within the last decade. Ten years ago the word “ terrorism ” was abhorred alike by liberals and revolutionists. To-day hundreds of terroristic murders are being planned throughout Russia, shocking all of us here, but, in Russia, only those whom nothing else can shock.

There was no terrorism in Russia from 1881 till the beginning of the twentieth century. The present Revolutionary party, which revived terrorism, if not as a part of its program, at least admittedly as a part of its tactics, numbers about half a million adherents, and operates with the secret help, the silent consent, or with the merely perfunctory disapproval, of many millions of Russian liberals, *i.e.*, professional men, landed proprietors, men of affairs. How has this party developed such strength in so short a time; and why has the Russian autocratic government, with unbounded means at its disposal, failed to check or counteract this movement in time?

The answer to this question is that His Majesty’s government has concentrated all its efforts in the cause of self-destruction. It has followed Leontyeff’s recipe, “ Russia must be kept frozen that it may not grow putrid.” This conception is so strange that it perhaps should be illustrated by a concrete example. The recently



published "Memoirs" of Leo Deutsch, his life in Siberia, are universally acknowledged to be objective and truthful. The following is a little page from Russian life, a story quoted from Deutsch's book:

"The chief town in the district of Poltava is a small place called Romny, and in this little town there is a girls' school. Two or three of the scholars hit upon the idea of lending one another books, and making notes on them—not books that were in any way forbidden, but were accessible to all. Soon a few young men joined them, and thus a small reading society was formed which could help pass away the long winter evenings in the dull provincial town. These young people had no idea that they were committing any offence, and they naturally never dreamt of keeping their proceedings secret. But the eye of the law is sleepless! The officer commanding the gendarmerie in that place saw and triumphed. For years he had been vegetating in this obscure corner of the empire, and had never unearthed the smallest conspiracy, nor brought to light a secret society; his opportunity had come. He could at last manifest his burning zeal, his devotion to his country and his Czar; and recognition by his superiors, perhaps an order of promotion, shone before him. One night the gendarmerie paid domiciliary visits to the dwellings of the young women of the school. Certainly nothing suspicious was found, but the frightened girls 'confessed' that they 'held meetings,' and that they read books in a 'society.' This was enough for the brave sergeant; here were grounds for the state to take action against the 'secret society of Romny.' The girls and their friends were arrested and imprisoned; a report was dispatched to St. Petersburg of the discovery of a secret society, in which such and such persons had taken part and discussed 'social questions' together; the officer was of the opinion that these evil-doers should be sent to Siberia;—they were sent."

Everybody can appreciate what effect this banishment to Siberia would have upon these seventeen- and eighteen-year-old children, upon their relatives, acquaintances, and the whole thinking public of the little town of Romny. The injustice was resented bitterly; the wrong that could not be righted, the merciless brutality

of the government's action suddenly awakened all concerned to the grim realities of Russian life. Peaceful, law-abiding, often conservative citizens became what is known in Russia as " revolutionists "; they are willing to work for the introduction of such political conditions as can safeguard their life and liberty.

There is, however, a great difference between a revolutionist and a terrorist; and only a tremendous pressure can force a radical revolutionist into terrorism. Yet the government has succeeded in creating terrorism on a large scale, notwithstanding the fact that the Russian revolutionist preferred suicide to murder.

The careful student of the Russian revolutionary movement will be horrified by the statistics of suicide among the revolutionists. They were driven into suicide by the constant persecutions of the government. But of the number of suicides among political offenders outside the prison, as well as so-called " hunger-strikes " inside the prison walls, the autocratic régime concerned itself not at all. His Majesty's government evidently thought the fewer revolutionists there were alive the better. Yet elementary common sense ought to have prompted the consideration that such a social phenomenon as suicide of Russian revolutionists *en masse* was a dangerous symptom. To-day a revolutionist commits suicide, knowing that he thereby does not annoy the government in the least; but will not this man to-morrow have a successor, who will not be ready to die without striking his mortal enemies?

The intentions of the Russian revolutionists were peaceful, and in the beginning of the industrial evolution of Russia they seemed to favor peaceful educational work and political propaganda among the growing working class in the industrial centres. With the development of capitalism the basis of the revolutionary movement rapidly changed, or perhaps it would be truer to say that in the development of capitalism the revolutionary movement finally found a real, firm basis for its activity.

The revolutionist of the end of the seventies eagerly followed in the footsteps of Vera Zassulitch; public opinion readily approved of deeds of violence when directed against violence, because it seemed an almost hopeless task to engage the common people in the struggle with autocracy. Deep beneath the emo-



tional surface of Russian terrorism there was a gruesome logic of which the terrorists were not altogether unconscious. There was no great working class at that time in Russia. There was only the vast peasant population, recently freed from serfdom. It was clear to the Russian revolutionists that generals may plan and direct but cannot fight battles; the people, the common people, storm bastilles, and pay the price of blood for their own liberty. In order to awaken in the peasantry elementary conceptions of individuality, of human dignity, of love for liberty, not less than 1,000 Russian revolutionists, well educated, cultured and refined men and women of the upper classes, engaged in a peculiar kind of settlement work, helping in the fields with the peasants and trying to uplift and influence them. Their work did not prosper. Results that only decades could produce were expected within weeks and months. They would perhaps have continued their social work for years had not the government, in blind fury, crushed their efforts, triumphantly exterminating the mildest protests of society.

After this last experience the Russian revolutionist had no further hope in the peasantry and in the revolt of the masses, and was reduced to the alternative of either resigning the struggle or—the shot of Vera Zassulitch suggested the other alternative.

The evolution of the terrorist psychology is very curious. Vera Figner, a remarkably beautiful and cultured woman, a daughter of a good family, was one of the most active leaders of the terrorist movement. Leo Deutsch, in his reminiscences, tells how she became a terrorist. He tells us of meeting her just after her return from a small village on the Volga, where she had been living and working as a peasant-woman. “The impression she had received there had stirred her deeply, and she described in graphic language the fathomless misery and poverty, the hopeless ignorance of the provincial working classes. The conclusion she drew from it all was that under existing conditions there was no way of helping these people. ‘Show me any such way; show me how under the present circumstances I can serve the peasants, and I am ready to go back to the villages at once,’ she said. And her whole manner left no doubt of her absolute sincerity and readiness

to keep her word. But her experience had been that of many others who had idealized 'the people' and also their own power of stirring them; and we were none of us prepared with any definite counsel that could deter her from the new path she had determined to tread—simply because she could see no other way to the desired end."

There can be no doubt that every man or woman who deliberately crossed the threshold of terrorism did so, with due allowance for emotional motives, because the rising of the masses, the great popular revolution, proved to be a dream of the remote future. Following the path of terrorism meant to the revolutionist a sacrifice of life. And how could a person sacrifice his own young life for anything less than his deepest desire? They began to regard their own struggle, the struggle of a handful of people with a czar, as a more humane substitute for a great popular and bloody revolt, their own self-sacrifice as an equivalent of a revolution.

Before us is the speech of Anna Pavlovna Korba, a typical terrorist, to her judges. She was brought up very carefully in a cultured noble family, was very religious in her youth and devoted her life after marriage to philanthropy; she goes in 1877, when the Russo-Turkish war broke out, as Red Cross nurse to the front, and on her return home becomes a terrorist. There is no break in her evolution—religion, philanthropy, nursing at the front, terrorism—and curious as it may appear, her speech to the judges leaves no doubt that her terrorism was a more or less strenuous form of philanthropic work. The idea of an extended popular revolt with much bloodshed is distasteful to her, and yet she is a member of the terroristic Narodnaya Volga, the People's Will party, which murdered Alexander II! "I admit," she told her judges, "that I belong to the revolutionary party, the party of the Will of the People, and I believe in its principles and share its views. I do not know of any organization that chooses and prefers a path of bloodshed. . . . Such a party may arise in time, if the revolutionary movement extends; *but if I am living when that time comes, I will not belong to it. . . .*"

" . . . The historical task set before the Party of the Will of



the People is to obtain independence and freedom for Russia. The means for the attainment of these objects depend directly upon the government. We do not adhere obstinately to terrorism. The hand that is raised to strike will instantly fall when the government changes the political conditions of life. Our party has enough patriotic self-control not to take revenge for its bleeding wounds; but unless it prove false to the Russian people, it cannot lay down its arms until it has conquered for that people freedom and well-being."

After the murder of the Czar the terrorists lost the moral support of society and terrorism became impossible. Industrial development, on the other hand, was gradually but surely forming a class of people destined to fight *en masse* for their own freedom. This situation changed the type of the Russian revolutionist. He became an organizer and political agitator in the labor world of the industrial centres.

The propaganda was carried on secretly among workingmen in small circles (*kruzhki*). Large meetings were impossible, as they could not escape the notice of the police. The revolutionary propaganda was therefore in the beginning very difficult and reached but comparatively few workingmen. The intellectual revolutionists were not influencing large numbers of the working people, but were educating a limited number of labor leaders, who in their turn carried on an agitation among their fellow-workingmen. The movement grew steadily for a decade in breadth and depth, and finally it could not satisfy itself with a whispered propaganda in small circles. The labor movement was clamoring for recognition, for self-assertion, and it served notice of its existence by appearing openly on the streets, in labor parades.

These parades, although perfectly peaceful and orderly, were regarded by the government as revolutionary demonstrations, and the police or Cossacks invariably dispersed them and arrested the participants. The working classes and the students persistently continued to arrange such parades on the 1st of May (European Labor Day), and at many other local occasions. The Russian revolutionists have been willing to expose themselves openly to at-

tack and maltreatment because of the great educational effect of such parades.

In the City of New York the politicians of both parties maintain that political parades, banners, etc., influence ten per cent. of the voters, in a city where the press and speech are absolutely free and house-to-house canvass is not interfered with. What, then, must be the influence of a political parade in Russian cities! A labor parade or a political demonstration has a profound propagandist influence; it reaches tens of thousands, makes them think about their life and surroundings, announces that there are men ready to protest against the existing political conditions, and invites men to join the ranks of the revolution.

All such demonstrations are dispersed by the police. But instead of merely dispersing the crowd or arresting the transgressors of the law, which prohibits such gatherings, His Majesty's government uses Cossacks with sabres and knouts, and mutilates scores of men and women. The Russians are used to it. The ingenious Governor of Vilna, General von Wahl, decided to arrest all participants in a peaceful demonstration and inflict upon all severe corporal punishment. Those arrested at the Vilna demonstration were stripped and flogged systematically, the Governor smoking cigarettes and counting the strokes while he supervised the details of the flogging. No appeal could be taken. The degrading and unlawful punishment was administered.

The Vilna flogging provoked general indignation, but the government entirely approved of von Wahl's action. Then came an avenger in the person of a Jewish workingman named Leckert, who shot at von Wahl, slightly wounding him. Leckert was executed, von Wahl promoted, and terrorism revived. Prince Obolenski indulged in flogging peasants; he was shot at; Governor Bogdanovitch ordered troops to shoot at a peaceful crowd of laborers; the Governor was shot in the daytime in full view of hundreds of witnesses, and the murderer escaped; Governor Andreeff imitated Governor Bogdanovitch and he met with the same fate. Terrorism was revived, and the revolutionists declared it to be a necessary means of self-protection. The terrorist party openly announced that whenever flogging or unprovoked shooting on a



peaceful crowd was indulged in, those responsible for such action would be killed by the newly formed special "fighting organization" of the Socialist-Revolutionist party.

Parallel with the growing number of victims of Russian autocracy, grows the number of victims of terrorism. After the St. Petersburg massacre of the 22d of January thousands of the staunchest and most cool-headed law-and-order men became terrorists. There was a popular clamor for vengeance, and it was a foregone conclusion that terrorism would reach higher and seek its victims among the members of the Imperial House. There was neither excitement nor surprise in Russia when Grand Duke Sergius was killed in front of the Supreme Court building in the Kremlin. Within the last few months political demonstrations and the execution of those taking part in the processions have become a common occurrence; the number of victims of terrorism has been proportionately large.

Patriotism and political wisdom alike indicated to the government that the only way to save the monarchy and the country was to abandon its reactionary bureaucratic ways, to grant a democratic constitution, and give the proper moral prestige to law and order. Terrorism would have then become socially and morally intolerable. But His Majesty's government decided otherwise; it adopted a method which has definitely proved that Russian autocracy exists only for its own sake, that it is entirely indifferent to the welfare of the nation, and is ashamed of nothing. His Majesty's government selected as its method not governmental reprisals, but common foul play; it has chosen to hire hooligans and bandits to kill those opposed to autocracy. The activity of hired hooligans with the help of the local police is reported in almost every Russian town of considerable size. The most successful massacre was arranged by the government in Baku, where about 1,200 Armenians were massacred under the supervision of government officials with government rifles distributed to the Tartars, who were engaged for this purpose. While the methods employed by the Czar's government in the Baku massacre are the same as in other prearranged massacres, it is especially interesting to note that all the arrangements were

made openly. The Governor-General of the Caucasus, Prince Galitzin, said publicly, long before the massacre, that he would not rest while there was one Armenian left, as they were all revolutionists.

The massacre was described in detail even in Russian papers published under censorship. The Tiflis paper, *Telefon*, states that government rifles were distributed among the Tartars and that every morning during the days of the massacre the Tartars openly received rounds of cartridges from the police officers at the station. The editor of the *Baku News* furnished the St. Petersburg paper *Syn Otchestva* with a long, detailed report, and a few passages of the report I will quote: "The house of Lalayeff was besieged for many hours by a crowd of Tartars, and at last burned with all its inhabitants, in the presence of several policemen, officers, and half a company of Cossacks. While the house was burning a small Armenian peasant emerged from the basement and ran towards the Cossacks, trying to conceal himself among the horses and imploring protection. A shot was fired after him by the crowd, but did not hit him. The Cossacks looked at each other for a moment, and then one of them struck the Armenian on the head. The man fell, but seeing an officer and soldiers near the entrance of the house, he got up again and ran towards them. The soldiers barred his way with their bayonets.

"On the 21st of February (the third day of the massacre) the Governor, Prince Nakashidze, accompanied by the Chief of Police and a hundred Cossacks, visited the Parallel Street. Here he was met by the greetings of armed Tartars. One of the Cossacks took the rifle away from a Tartar, but the Governor immediately ordered that it should be restored to him. The massacre in the street continued during this scene."

A correspondent of the *Osvobojdenie* tells us that the Governor arranged the details of the massacre, and knew precisely who was going to be killed. He assured a prominent lawyer, who begged for protection, that the Tartars would spare *him*.

The oil producers of the country unanimously passed a set of resolutions sent to the Secretary of Agriculture which begins with the following statement:



“ During the days of 19th-22d of February wholesale massacres of defenceless citizens in the streets and houses of the town, accompanied by plunder and incendiarism, have taken place with the permission of the police. The crimes were perpetrated in the presence of the troops and the police, who calmly looked on at the deeds of the murderers, plunderers and incendiaries.”

What happened in Baku is taking place in a less degree throughout Russia. In Kursk a well-informed citizen writes us that His Majesty's government is hiring hooligans for one rouble to one rouble and thirty kopeks a day plus all the vodka necessary for enthusiastic work; and this is after His Majesty's manifesto of December 26, 1904, in which he solemnly promised in the very first article of the manifesto to insure legality throughout the country and to adopt measures against arbitrary acts of officials.

But the truth is that His Majesty's government does not comprehend what legality means, and as local officials do what they are ordered to do, their actions cannot be considered arbitrary.

## A NEW PERIL FOR THE TRADE UNION

JOHN GRAHAM BROOKS

THE best friend of organized labor will admit that its chief perils are from within. The abuse of new power, the retention of bad leaders, an eagerness to rush hotly into impossible boycott and sympathetic strikes, the interruption of industry by wrangles over "jurisdiction," restriction of output and the placing of unfair limits to the use of apprentices or machinery, are abuses that can be traced directly to certain unions. It is true that these evils are in no sense confined to trade unions. They may be seen at their worst in many capitalistic organizations. But while this fact may make our attitude towards the unions a little more tolerant, it does not free them from deserved censure.

The embittered contest over the "open" or "closed" shop raises anew these issues and sharpens every outline of the struggle. It is claimed that "\$300,000,000 of money now back the fight for the open shop." To this end a new literature has been produced with elaborate and ingenious agencies to carry on the propaganda against the "closed" or union shop.

I wish, without further consideration, to state three facts which will be taken for granted in this discussion. Trade-union excesses at certain points have compelled the employers to organize. Second, this organization, if directed fairly against the abuses of the unions, will be of great value to the unions. The struggle on the inside of labor organizations between the conservative and the raw, radical elements is quite as relentless as the struggle between the union and the employers. A stubborn, well-organized opposition to every abuse on the part of the union will strengthen the conservative control within those warring bodies. Third, if (as in some of the allied building and metal trades) the union persists in retaining a reckless leadership, the employer has no alternative but to fight; to fight, moreover, not on the assumption that the union is to be preserved—but that it is at least temporarily to be destroyed.

Neither the open nor the closed shop is a clearly defined object for discussion. In respect to trade-union aims and employ-



ers' rights, there may be a more radical difference between two closed shops than between an open and closed shop. There are employers who prefer collective bargaining and the joint-agreement, with the provision that only trade unionists be employed. Granite-cutting, cigar-making, and coal-mining offer such illustrations. There are closed shops in which the union insists upon having the foreman a member of the union; which restrict output; which refuse the employer the right to discharge, and compel *him* to force non-union men into the union. There are open shops like that of the *Boston Transcript*, so fair as to wage-scale that I have heard trade-union printers say that they did not even object to this kind of open shop, because the non-union standard was controlled by the union. There are many other open shops in which discrimination and blacklisting against trades-union men is so bitter that it has every characteristic of the worst closed shop. It is with this extreme diversity of conditions that we have to deal. Most industries in England have the open shop, and yet in these instances it is distinctly understood by the employer that he is under practical coercion not to have non-unionists, and he is committed to the closed shop more than many a business in this country where the union label has been accepted and the contract signed.

Every attempt at definition is embarrassed by these diversities. Theoretical accuracy would class as open shops scores that are termed closed by employers and employed. Employers in soft coal, granite, stove and cigar industries, tell you, "We have the closed shop," and the fact remains that the "joint agreement" doesn't mention it, or expressly say it is an open shop.

Logically, or in terms of the contract, we cannot escape this verbal perplexity. The moment, however, we approach from the practical side, this difficulty vanishes. As I deal with this practical side, I think it adequate to say that a thoroughly unionized shop, understood to be such and accepted as such by the employer, is a "closed" shop," just as the open shop is one in which the employer hires and has non-union men constantly on hand.

That the contract for the closed shop forces the employer to discriminate against non-union men shows at once why the fight

is on. It explains the heat and the determination of the employer. It explains in part the stiff reaction against the trade unions in the United States during the last eighteen months. It explains the almost universal approval by the press and the outside public of the open-shop principle.

However friendly one may be to the closed shop under certain conditions, it must be confessed that it has to be defended as a practical exigency in a given time and place, rather than as a *principle*. One must also admit that the twofold organization which the closed shop implies may finally prove so costly to the general consumer that it will be condemned on this ground alone. We are not, however, at present sure of this.

That the issue has arisen in its present form is to the advantage of the employer. It is not only ill-luck for the unions, but partly their fault, that they have permitted the issue to get before the public in its present shape. If instead of crying loudly for the closed-shop contract with its obligation to turn the employer against the non-unionist, they had turned the tables and cried against the proposed discrimination against an effective unionism with its principle of joint-agreement and collective bargaining, the trade-union argument would probably have three chances in the fight where it now has one. I admit there would be an element of humbug in this strategy, but not one-half the humbug that fills the great words "liberty," "freedom," and "Americanism" of the employers. The employer will get every advantage out of those big words. The public will respond to them. The response will be so general, so unequivocal, so instinctive, that there is a good deal of danger not only of general confusion, but of injustice to what is best in the aims of organized labor.

Why is it that the trade unions object to the open shop? Because they fear it will be used to disrupt or dangerously weaken their organization. The open shop in the hands of an employer who is hostile to the union can easily use the non-union contingent with deadly effect. The non-unionist is always dangerous to the wage-scale. The union is open to insidious attack at the very points where its weakness is greatest. This is no mere theorizing of the trade unionist. It is a part of his long and bitter experience



in trying to raise wages and lower hours. I heard the social secretary in a business that has finally granted the closed shop tell why he thought the men were right. "When the union was weak," he said, "we could deal individually with non-unionists who were often willing to start in with almost any wage. This enabled us to play these men against the trade union minimum so as to bother the life out of them. But more than this," he added, "is the temptation of the employer, whenever he is hard pushed, to cut wages, as this is the easiest of all ways to get out of financial trouble. In our business," he said, "a cut of five per cent. drops several hundred dollars a week into our cash-box, but if we can bargain individually with freshmen and new apprentices, we can get the equivalent of that cut without appearing to make it."

Again, this danger of the non-unionist is incalculably greater in America than in England, because the disciplinary power of benefit features is here so slight.

The chief struggle of the union is the discipline of its members, collecting dues and enforcing penalties. In a union that is new or weak or composed of many nationalities, the open shop, *plus* an employer unfriendly to unionism, may render the building up of an organization that possesses any real power of assertion almost impossible. Nor is this the interest of the trade union alone. The public concern is definite and immediate if the principles of the joint-agreement and collective bargaining are of any social importance. Strictly on the evidence, we have come to believe that both these agencies have economically and educationally extreme utility. If anywhere in the future the wage system is to be modified in the direction of more co-operative and democratic methods, the joint-agreement in some form has to be strengthened and extended.<sup>1</sup> For the kind of education we most need, politically and industrially, I do not know of a more disciplinary agency now working in the United States than the joint-agreement, as it may be seen for example in our soft-coal districts and among the longshoremen and cigarmakers. Of the value and justification of collective bargaining we need no further proof.

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<sup>1</sup> The significance and social utility of the "joint-agreement" was very ably stated in this periodical.

And so far as it is the policy of employers' associations to carry on the fight for the open shop with the rancor shown in every issue of "American Industries," does anyone suppose that the unions will not strike back in the same spirit for the closed shop? This rancor among employers will create the very difficulty they are trying to avoid. The most able labor leaders in this country hold that the power of the absolutely closed shops, if generally applied, would be unsafe from the union point of view. They hold that the compulsory element, except in a few industries, is dangerous; that the progress of the union depends upon persuasion and upon merit.

The Civic Federation has done its most signal service in meeting the trade union at this highest point of its development. It enlists the co-operation of what is best and most conservative in labor organizations. It thus avoids the blunder of trying to discipline the union chiefly from without. If unions are to persist, their education must come more and more from within.

But what has this to do with the open or closed shop? It has pretty much everything to do with it, in the actual situation which we are considering. The National Typothetæ of America, at their last meeting, came out almost fiercely for the open shop. In a paper that received great applause, the vice-president said, "The open shop means the destruction of the union, unless the unions concede it." He then attacks the whole method of the wage-scale that goes with collective bargaining, saying outright that the employer must deal with his men "individually," hiring whom he will with no conditions, discharging men as he sees fit without giving any reason. Among an exceptionally intelligent group of employers, we thus see what the unions have to face. In spite of a formal sop to collective bargaining at Pittsburg last spring, the Manufacturers' Association of the United States leaves us in no doubt as to what its members want, if they are strong enough to get it. They decry every distinctive feature of labor organization, so far as it is an aggressive body struggling through its representatives to get a higher wage and shorter working time.

It will be helpful if we understand more clearly the frequent references to the open-shop question in England and in well-



behaved unions like our own railway men who have the open shop. Those who compose this union are a picked and carefully sifted lot of men in no way analogous to trade-union membership in the severely competing industries of cigar or garment-making. In England, where the open shop technically prevails, the population is homogeneous, the unions old, disciplined, restrained by large benefits; and the employer, however much he may hate them, has come to recognize the fact of unionism, the fact of the joint-agreement, the fact of collective bargaining, in a way that separates the situation there well-nigh absolutely from our own.

There is, I think, almost no real light to be thrown on our subject apart from the facts and peculiarities of our own present industrial condition in the United States. The chief peculiarities of this condition are, first, the degree of individualistic temper in our employing class, marked by a succession of industrial triumphs which is unmatched by every test of material success; and, second, the extent and character of our immigration and all that it means to the employers in their struggle against a really effective unionism. That there is a struggle against the union "per se" will, of course, continue to have very insistent public denial. "We do not object to what is good in trade unions; we have no quarrel with trade unions as such," are very familiar phrases. I have spent a good deal of time trying to find out what intelligent meaning attaches to "per se" and "as such," what "the good trade union" is in the eyes of a large part of the most influential employers.

During several weeks of the Colorado strike, I found no employer who was not careful to say in public and in print that the trade union was all right "as such," but the organization he had in mind was one for which no lot of laborers would sacrifice an hour's time or a day's wage. A labor organization such as would correspond to the organization that capital has secured, was a thing to be fought to the limit and with any weapon.

The illustration is an extreme one. A part of the trade-union leadership in those communities deserved all the punishment it received; but the temper towards such a union as the workmen are very rightly trying to get is not in the least confined to Colorado.

It characterizes at the present time thousands of our employers.

The third characteristic of the situation is the rise and federated strength of citizens' alliances and employers' organizations. These organizations have doubled and redoubled the strength and confidences of the employers in their contest with unionism. Association has changed the helplessness of isolation, to the courage that comes with organization and the various forms of insurance which association offers. In many a town in which trade unions have become domineering, one sees the strongest men in the community in every business and in all the professions so united that the mayor, the aldermen, the police, the editors and even the courts, are greatly stiffened against the whole fighting policy of the unions.

Some of these anti-union bodies, in securing members, have gone far beyond persuasion. There was never a more effective blacklist in the United States than that which is employed by these associations. There has been plenty of picketing and boycotting of an extreme form. As they have strengthened along the lines of general federation, they have shown extraordinary efficiency in checking labor legislation in Washington—the eight-hours and the anti-injunction bills were not even reported out of the committee. They have legal departments, press committees, detectives, employment bureaus and their own walking delegates and a staff of strike breakers. In several instances they have turned patronage toward a boycotted firm so that the boycott resulted in a pecuniary advantage to the victim.

This militant and confident individualism; the overflowing market of low-class labor which immigration offers; the united and aggressive force of employers' associations, shows what trade unions have now to face in this country.

Here in this employers' organization is a new force with which trade unionism must cope. Its strength and permanence we do not know, but it is well for the unions to understand that capital in this country has never before found it worth while to exercise its real strength against organized labor. It now finds that it is worth while.

It is true that the excesses of certain unions have forced the



employers to organize themselves. But the supreme question of how to use this power remains. The open shop is safe when exercised with wisdom. But it is socially of extreme danger when conducted for immediate advantage.

Very little light is to be thrown upon any practical feature of this open-shop question apart from these tempers and conditions amidst which the contest must be carried on. It cannot be discussed with profit on any grounds of abstract rights.

When Mr. McSweeney says that Constantinople is now the centre of our immigration, we can realize how the economic types can be lowered. Thousands, moreover, come almost monthly, not because of the hardy and adventurous quality which makes the good emigrant, but because they are wheedled and persuaded to come here by swarms of local agents. In Southern Italy alone there are more than three thousand of these agents. The granite-cutters who have the closed shop had little difficulty with the Italians from the north of Italy, but for some years the increasing proportion of Southern Italians, coming in flocks under contracts to padrones, has made an absolutely new problem for those unions.

Guidance must come in this question from these competitive conditions and not from any sounding generalizations whatsoever. Employers are going to the tilt in the name of "liberty," but organization on both sides has introduced something so like a revolution that we do not know what liberty means when applied to the new situation. If the closed shop, brought without any violence and with the consent of the employer, as is the case in some of the cigar factories, resulted in a good living wage with eight hours and improved conditions, and the entire exclusion of children, while outside the union there raged a destructive competition and many children were employed, would it not be grotesque to make words like liberty and Americanism synonymous with such haphazard competition? Liberty is not adequately defined in terms of the employers' pecuniary interest. It also has social connotations which we are only beginning to learn.

The landlords fighting the Irish land act of 1881<sup>2</sup> were en-

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<sup>2</sup> John Morley calls this (*Life of Gladstone*, III, 537) the most deep reaching of all his legislative achievements.

raged because this act was an attack on "free contract" as interpreted solely by the landlords' rentals, but Gladstone and those who helped him forced the public to recognize that the cottier tenant was not in a position to make a really free contract. This kind of contract had to go, together with unchecked competitive rents. In our own country we shall not take one enlightened step in dealing, for instance, with industrial accidents, without modifying very profoundly this principle of free contract, as in the case of "contracting out." If in the garment industry it should be found that the employers could not control the situation;—that advantage would be taken of the open shop and of the stream of fresh immigrants like the Italians who do not care, as do the Hebrews, to keep their children in school; that the gains due to trade union sacrifices would not only be put in jeopardy, but that the power of the sweater would be on the increase,—could we in this instance be comforted by any unctuous rhetoric about "Americanism" and "freedom"?

There may conceivably be the amplest compensation for any formal limitation on this freedom. In such special industries as I have indicated, social utility and security must test even the biggest phrases. If with the closed shop the union wins two dollars a day and eight hours, it may well forego some aspects of personal freedom. Or shall we say that the open shop of the sweater, with a dollar and a quarter and a twelve-hour day, is more desirable because the workers are "free"? If the facts force this alternative, which are we to choose?

In thirty-eight labor papers I find the demand for the closed shop. With the exception of two or three unions like the locomotive engineers, the demand is practically universal. I would not make too much of this, but I wish to submit this question: From what we know historically about the long struggle of the trade union with the employer, have the trade unions been wrong more often on the chief issues between them than their masters? I doubt if any student would claim this. If the conviction of labor upon any point has persisted and become a mass-conviction, does it not now make an extremely good showing as compared with the judgments of the employer on the same points? That the feeling



and opinions of the unions on the closed shop has such strength and persistence surely means something. It is, of course, difficult to judge this open-shop issue, as I am attempting to do, by the employers' temper, and by business and social conditions. We are by no means certain either of the temper or conditions, and are much less certain of the changes that both will undergo. Immigration may be greatly checked. The employers' association may fall under the control of heads steady and wise enough to deal coolly and adroitly with this question. The temper and policy of the trade union may also change. Last summer, in Colorado, I asked the employer who led the fight at its bitterest point what policy they were likely to adopt when they had smashed the Western Federation of Miners. "Keep the wage up and the hours down and deal fairly with the men, let them have a union if they want it, but a decent one." If they should do that; if the pig-headed, the embittered, the weaker and hard-pressed employers could be controlled by such a spirit, there would be no cause for worry about the open shop.

In the garment-making industry, where a good test for this question is found, I am told by some of the best employers and by the national president: "We are agreed not to use immigration to lower wages or to lengthen hours of work. We have won the open shop and we shall keep it, but we shall not use it to weaken the trade union or to lower the standard of living."

I could not find a garment-maker or labor leader in that trade who believed for an instant that the employers could do this. The unions are in terror of what they believe an army of petty warring contractors can bring about through competition and the easy resources of Jewish and Italian immigration. It is extremely doubtful if employers' organizations can ever hold together without the steady organized resistance of the unions. Thus we have to watch this new power now in the hands of the employers. The open shop has come where it was least expected by the unions; in printing, garment-making, building trades and among the metal workers. The anthracite Coal Commission, in its report, made this issue clear and emphatic. President Roosevelt also met this issue unflinchingly in the Miller case at the Govern-

ment Printing Office. All possible pressure and threats from the trade unions were brought to bear upon him to discharge Miller and thus play the closed-shop game. The public sympathy for this action of the President was instant and complete. I was sitting with a little group of trade unionists in New York City a few days before the election. One of them said, "We have our orders to vote for Parker because of the Miller case." Yet what conceivable indications were there of any real union response to this demand? They went their way and voted for Mr. Roosevelt. They saw clearly that the Government could not thus discriminate among its citizens. They saw that competition could not there enter in and lower the wage-scale, by using non-union men, as it does in so many private competitive industries.

We fear the extreme open-shop claim precisely as we fear the claim of the extreme closed shop. We now have proof that to press the open-shop issue too relentlessly will cause strikes and engender much bitterness and a spirit among his workmen which would mean pretty much everything that the employer wishes to avoid. If the union restrict output, will the employer in the long run get less with a crushed union and a sulky lot of workers?

The bearing of this closed-shop contest on the sources of good or ill-will of the employer and employed is fundamental in this discussion. I have given opinions from nearly forty labor papers. What, then, may fairly be said of the temper on this issue of a very large number of employers? It never had so general or so definite an expression. We need not confine ourselves alone to the organ known as the *American Industries*. In this journal, and very widely on the outside, we have first the persuasive shibboleth, "The employer now proposes to manage his own business." That carries so convincing a proof, and if properly defined, is so true that it is worth taking up arms for, but like "freedom" and "true Americanism," it is a phrase, and it may be a damnable one, if "managing one's own business" means the destruction of collective bargaining and all that implies in helping labor to assist in determining the wage-scale, working-time and specific shop conditions. That such crippling of the trade unions is the purpose of hundreds of these new employers' organizations ad-



mits, I think, of no question. It is evident in their constant and contemptuous reference to the Civic Federation, to collective bargaining, the joint-agreement and even to arbitration. With this temper the open shop is likely to be as dangerous socially as the closed shop at its worst. Every conceivable affront to liberty may go with the open shop. Vicious discrimination against union men as such, the boycott, and the sympathetic lockout may also play havoc with every principle sacred in a democratic society.

The delight of the socialist at the success of these anti-trade union organizations has plenty of significance. If I were a socialist, I should hail "Parryism" and all it means as the most effective aid for political socialism in this country. On the other hand, I should fear most the constructive work of bodies like the Civic Federation. These stand without any humbug for common organic efforts between capitalistic and labor organizations. They squarely grant to the union strength enough to get some form of agreement, so that the habit of contract-making and contract-keeping can slowly be built up between industrial groups. It required generations to teach any group the hard lesson of contract keeping, and we are as dull-witted as we are unjust to expect the labor world to learn this lesson rapidly.

Finally, one hopes that the closed shop, where it is working constructively and decently, as it has been for years in several of our industries, may have a fair chance to show what it can do—in raising wages and reducing hours. The cigarmakers in Boston, for instance, have the closed shop, but with no written agreement. Upon principle they have low initiation fees (three dollars in six annual installments), in order that all in the trade may easily join. If no person is refused admission, shall the closed shop be classed strictly among monopolies? There are cigar factories which are closed absolutely to those known to be trade unionists. I suppose that not a half of the cigarmakers have the closed shop, but it has nevertheless instituted educational and disciplinary work—elaborate insurance benefits—unemployed benefits—and more than all these, has won an eight-hour day and a decent wage under piece-work which affects the whole trade. That complete individual freedom suffers somewhat under this régime is, of course, true,

but limitation of personal liberty is not in the least peculiar to the closed shop, nor does it find there its worst forms. The able secretary of the Boston cigarmakers writes me, after the long years of struggle to get their present standard, including the elimination of children and equal pay for women with men, "I hold if the hours of labor are eight and the wage two dollars a day, no one should be allowed, if we can help it without violence, to sell his labor below the scale or agree to work longer." If a strong trade union is necessary to win and maintain this hard-won standard in industries like garment and cigarmaking, should we not be very patient with the method (if violence is eliminated) that is found necessary to secure the result?

There is not the slightest fear that the closed shop will become universal. The compulsory and monopoly features in such voluntary association are an evil with little justification further than that they are necessary at a certain struggling stage of the trade union movement in its costly effort to raise and maintain its standard of life.

The enemies of the union in this country are doing their utmost to fix the attention of the public and keep it fixed on the accidental features of the movement,—on its excesses, its bad leadership, its narrowness and short-sightedness. Unhappily these are all there, but they are in no sense even secondary aims of unionism. They primarily seek to retain against immense difficulties the income and conditions of an improved economic and social standard.

We are at present so ignorant about the necessary limitations to the competitive system that we ask some suspense of judgment about the closed-shop principle, especially where it is working without any grave injury. It is very certain that our conceptions of liberty and law and freedom of contract, as applied to the actual situation, have to undergo considerable modification. With intelligence and good temper on both sides the practically closed shop, in such industries as I have indicated, may be found temporarily of considerable value in strengthening collective bargaining and the joint agreement, and a help toward a more tolerable organization of industry.



## PSYCHICAL FORCES OF INDUSTRY

RICHARD T. ELY

A FEW years ago we heard a great deal about a new forward movement in economic theory that was attributed to a profounder study than had hitherto been made of the psychological forces at work in man's socio-economic activities. Professors Menger, Böhm-Bawerk and Wieser, leaders in the so-called Austrian School of Economists, were most prominent in this renaissance, and their chief service was to elaborate anew the theory of value based upon a more careful analysis of man's mental processes. But the distinguished German economist, Adolph Wagner, of the University of Berlin, who achieved fame long before the Austrians were widely known, frequently insisted upon a deeper study of the psychological forces in our industrial life as a condition of progress in economic science. Wagner's treatment of capital affords illustration. He tells us that "an examination of psychical considerations disclosed by the study of economic society gives reason to believe that only under private ownership will there be a sufficient accumulation of capital."

With all this emphasis upon the psychology of economic life, the peculiarly psychical elements at work in industrial evolution have received strangely enough little distinctive attention even at the hands of scientists, while their existence appears to be almost unknown to the educated public. Nevertheless, it is precisely the so-called psychological considerations which are decisive in the elaboration of a wise policy, as well as in the correct scientific treatment of industrial problems. In other words, in my opinion, the least attention has been given to psychological considerations in that field of economics where the psychological method is likely to yield the richest returns. It is my purpose now and here simply to throw out a few suggestions which go to prove that we cannot understand industrial evolution unless at the same time we give careful consideration to psychical forces. These considerations, it is hoped, will throw some light upon a correct solution of important industrial questions.

The evolution of industrial society is generally recognized, although its implications are not familiarly known. A study of the history of industrial society reveals clearly that we have passed through various stages. It is not necessary when we say this to commit ourselves to any particular theory of advancement. According to the old and well-known classification, mankind has gradually progressed from hunting and fishing to a pastoral life, from pastoral to agricultural pursuits, and then has advanced through the agricultural to the handicraft stage, and finally to machine production. Each one of these economic stages is, of course, subclassified into phases. A general line of industrial evolution may thus be marked out, but such a scheme does not imply that every portion of the human race must pass through the same phases. It would take an undue amount of space to enter into a discussion of the scientific arguments and reasons which have been put forward to establish the soundness of this classification. In order to arrange the facts systematically and to accumulate knowledge, it seems necessary, on account of the limitations of the human mind, to divide our industrial evolution, which has a history of thousands of years, into periods. We find that men have lived in each one of these stages. Each stage has in its full development characteristics which distinguish it from the preceding and likewise from the following stage; and there are the transitional periods which link the different stages together. No one will deny that the handicraft stage of the Middle Ages is radically different from the industrial life that we now live. It is precisely when we consider our industrial evolution psychologically that we find the deepest meaning in the divisions of our economic or industrial life—for the two terms here are used interchangeably. In the passage from one period to the next through the different phases of a single period, we notice certain changes in those habits, mental traits, and characteristics which lead to success. There is a certain psychical type of man corresponding to every phase in our industrial evolution. Where an individual has this psychical nature he is in harmony with his environment. The absence of this psychical nature results in disharmony and lack of adjustment.



The purpose of economic activity is to gain subsistence through control over nature, and just in proportion as man gains more abundant subsistence through increased control he may be said to advance to higher stages in the economic life.

There are those, also, who in their life do not keep pace with the general industrial advance, and, unless special preventive measures are taken, a period of rapid movement leaves behind a relatively large number who are unable to adjust themselves to the changing conditions.

Finally, this movement in the economic life has continued for thousands of years, and those who have kept abreast of this progress are separated psychologically by thousands of years from those living under the conditions of the earliest stages. They are the descendants of generations of men who have had all this time for adjustment, an adjustment secured very largely by natural selection.

If we reflect upon the change from the agricultural to the handicraft stage, it will help us to understand these psychological features in industrial evolution. Man has gained a greater control over nature by using tools of a higher kind; through a greater accumulation of wealth, which was conserved in preparation for future needs; and lastly, by associating more closely with his fellows. Let us examine the implications of each one of these three methods by means of which nature has been subjugated to an increasing extent. The use of a higher class of tools requires more complex brain operations. And as the industrial life becomes more complex its features show clearly that the man who succeeds under the new conditions must meet increasingly severe mental tests. A greater degree of self-control is another requirement of the higher stage of economic life. Wealth must be accumulated not for immediate consumption, but for future consumption. It has been found necessary to pay some men of a low type twice a day in order to induce them to continue their work. A man of an advanced economic type will make an effort without the slightest thought of reaping the fruit of the effort within a period of ten years. The closer association of man with his fellows is one of the ways to subjugate

nature; and there is greater production as associations of an economic character become larger and closer. Under such conditions men are forced to work steadily and persistently in organic relations. If large success is to be achieved there must be power to command and readiness to obey without sacrifice of liberty.

What has been said appears of great significance when we compare the present machine stage of production, characterized by a high degree of competition, with the earlier handicraft stage. Alertness, adaptability, and quickness of adjustment are at the present time the conditions of large success. The ties of an economic character which bind men together have increased extensively and intensively with unprecedented rapidity. The term industrial society has only recently become familiar, and there has developed a social self-consciousness which imposes its own problems upon members of an economic society, but is at the same time one of the essential conditions of a progressive life.

It follows naturally enough that those who have succeeded in a lower stage may fail in the life of a later and better period. The piratical merchant who was once a hero would now be hung from the yard-arm. The ancient Germans, Tacitus tells us, thought it a disgrace to gain by the sweat of the brow what could be secured by the sword. There is no room for doubt that many a modern bandit would in an earlier and more crude society have been a hero. This is perhaps a sufficiently familiar observation, but its implications are often overlooked by scholars when they come to treat present economic problems. Men are mentally prepared in varying degrees for the present economic conditions, which have been gradually reached during thousands of years. Within the nation there are those who in mental traits and characteristics are only imperfectly prepared for modern economic life and must be treated correspondingly. Man's mental and moral make-up is capable of only a limited modification after the period of maturity, and in the case of children heredity sets a limit to the possibilities of modification, although this limit is very flexible. This is clearly illustrated in the United States by the Negroes and the Red Men, who with their ancestors were brought up in



a stage of industrial society separated from ours by a period of hundreds if not thousands of years. Is it conceivable that in a short period these people can acquire the ability of forethought and careful planning which leads to success in the most advanced economic society? What is true of these races is true only in a less degree in other classes of society. During the past century the generalization of economic progress has been more rapid than the generalization of psychical traits corresponding to the progressive phases of industrial evolution. We have a society which, broadly speaking, has become coöperative under competition, but many men have not acquired those psychical characteristics which adapt them to a society at the same time coöperative and competitive.

This lack of correspondence between a great many men and classes of men and the particular phase of industrial evolution reached at a given moment, is in my opinion a very important fact; and I beg, therefore, to give an illustration from the changing conditions of American agriculture. I take this illustration because it is familiar to me, and because it is especially striking.

Modern agriculture is becoming daily a more complicated occupation, requiring a larger and higher type of man. More machinery of a better kind is used, and there is less and less of manual toil. The machines plant, cultivate, dig and harvest. This method of work requires an increasing amount of capital, and lengthens out the period between effort and the fruition of effort. There is a continuous evolution from simplicity to complexity. Professor Elwood Mead has well said in one of his Irrigation Reports: "The traction engine and the automobile have both an assured place in the economic operations of farms. Improvements in electrical transmission render it certain that water-power is to be used more largely than in the past. Farm buildings, instead of being simply storage places for grain or shelters for live stock, are becoming as complex in their designs and uses as factories."<sup>1</sup>

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<sup>1</sup> Review of Irrigation Investigation for 1902. Washington, D. C. In the "Annual Report of the Office of Experiment Stations," p. 368. United States Department of Agriculture.

Irrigation also shows the need of a new type of man in agriculture. The old-type farmer was by training an individualist. He looked to himself for success and his isolation so influenced his character that his individualism seemed to become a part of his nature. But when the farmer from Old England or New England goes to the Far West, where the only agriculture is irrigated agriculture, he must unlearn his individualism and become a co-operative man. The first farmers in a state like Colorado cultivate the bottom lands by means of simple, inexpensive ditches. Even this kind of farming necessitates a knowledge of the proper ways to apply water. But as time goes on the ditches must be made larger and more expensive in order to cultivate the higher, so-called bench lands, which have proved to be the more fertile. A single ditch means the investment of hundreds of thousands of dollars. Reservoirs are next constructed so as to save the floodwaters and to equalize the supply of water, bringing water to crops late in the season when natural streams run dry. The relations of farmer to farmer and of farmers to others who need water for manufacturing purposes or for urban purposes become daily more complicated until the solution of the problem thus presented is a task worthy of the best intellects of our time. It is said that only a high type of man can succeed in agriculture in a state like Colorado, and I must say that I have never seen elsewhere farmers who as a whole appeared so active and alert, so much like capitalistic manufacturers. Those equal to the task set by irrigated agriculture seem to make large gains, and the others are crowded down and out. There must be a proper regulation of the economic relations involved in irrigated agriculture, for without regulation the strong could tyrannize over the weak.

The American Economic Association has recently published a monograph<sup>2</sup> by Dr. H. W. Quaintance, Instructor in Economics, in the University of Missouri, that throws a good deal of light on the nature of agricultural development. He speaks especially of the newness of our present farm implements and agricultural methods. Agriculture in our colonial period was not markedly

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<sup>2</sup> "The Influence of Farm Machinery on Production and Labor."



different from that of Egypt 2,000 years ago. On the other hand, our nine principal crops, namely, barley, corn, cotton, hay, oats, rice, wheat, potatoes, and rye, nearly four-fifths of the present yield, is due to the use of farm machinery. That is to say, farm labor is estimated to be nearly five times as effective in the production of these crops as it was in the year 1850. With the exception of one of the nine crops, namely, cotton, a decrease of labor is absolute as well as relative; there are difficulties of adjustment along several lines, and also increased demands upon brain power and moral force. A far larger amount of capital is needed than formerly to carry on agriculture with success, and, consequently, hired laborers have been increasing rapidly in states like Illinois. More intelligence is demanded to run machinery than to carry on agriculture by the old methods, and the workmen employing machinery in the production of crops have been able to get a large increase in their daily wage. On the other hand, it is stated that the average daily wage of laborers who are engaged in those branches of agriculture which require little machinery has actually decreased.

The recent methods in corn culture which are being introduced in the Central West are of striking interest. We have heard much about pedigreed stock and now we are becoming familiar with pedigreed corn (maize). A Bulletin published by the University of Illinois in August, 1903, gives an analysis of corn taken from forty ears, each of which represents seven generations of pedigreed corn which have been bred with reference to some particular quality. It is not enough to raise corn, but corn must be raised for special purposes in order to achieve the largest success. Stock-feeders want protein in corn, and by breeding it is easy to make a variation of 100 per cent. in protein. Manufacturers of starch and of glucose sugar want more starch and less protein in the corn. It is stated in an earlier bulletin, likewise of the University of Illinois, that "the yield of corn can be increased and the chemical composition of the kernel can be changed as may be desired either to increase or decrease the protein, the oil, or the starch." The purpose of this reference to pedigreed corn is to bring out clearly the significance of economic evolution with re-

spect to the kind of man who is going to achieve the greatest success in agriculture.

The use of automobiles elsewhere than in agriculture affords further illustration of the thesis under consideration. Automobiles are not used as much as they might be in retail trade, because the employees are so frequently not competent to run them. A grocer's boy who can drive a horse may not always be trusted with the automobile. But progress is simply delayed. In the end, those not equal to the higher requirements will be pressed down and out, and will render existence more difficult in the overcrowded ranks of the inefficient.

The minimum wage established so generally by trades-unions has a similar consequence. Those who are not equal to that degree of efficiency warranting this minimum wage are crowded out of their trade, and labor organizations have, in some cases at least, made provision for this condition.

On the other hand, there is an antinomy in the fact that this same industrial evolution has in consequence of the division of labor created employments of a routine character exceedingly simple, apparently soul-deadening and very poorly paid. These occupations fall to the helpless classes in the community, to those crowded down and out by the demands for labor of an ever higher order.

All of the above considerations are in direct connection with the struggle for equality of opportunity. The progressive evolutionary stages of industrial society set increasingly difficult tasks, and as a result of the unequal development of men, there are capacities almost infinitely varied which can be applied to them.

The subject of contract brings forward in a new way the increasingly complicated nature of modern industrial society. This is of particular importance in the consideration of the labor problem. Labor-remuneration is governed by contract and contract determines the other conditions of employment. The modern contract becomes daily a more intricate affair, and its interpretation taxes the ingenuity of our ablest legal minds. On the other hand, it requires a rather developed mind to grasp even the essential elements of contract. One of the obstacles to reform in Tur-



key is said to be the difficulty which the ordinary Turk has in understanding the significance of time.<sup>3</sup> Yet the concept time is one of the first elements in the labor contract. Let us pause for a moment to consider the difficulties of contract. Contract must be viewed as sacred. It is a necessary foundation of our socio-economic order. We admire the man "that sweareth to his own hurt and changeth not." Thomas Jefferson wrote in his Bible opposite that verse and the verses accompanying it in the Psalms, "the description of a perfect gentleman." And we feel that he was right. Yet in contract we have all the hardnesses, injustices, and cruelties of nature. It is simply a medium through which existing forces find expression. The individual must obey his individual contract; but it is apparent that there must be a higher power, a public power, controlling, regulating, forbidding some contracts, determining the conditions of others; and in extreme cases annulling a contract, as the courts in Germany may do in the case of usury. Public authority must be the binding and loosing power. Irrigation affords another illustration. From the Platte River system in Colorado, Wyoming and Nebraska, more than two thousand ditches take water. The absurdity of the idea that voluntary agreement expressed in unregulated private contract can divide up this water satisfactorily is of course apparent to anyone who knows even the primary elements of the problem involved.<sup>4</sup>

If there was sufficient space it would be interesting to consider at some length the problem of those who are left behind by industrial evolution. We have those who make up the element in our population that has been called the submerged tenth. These must be carried with as little pain as possible to themselves and without injury to society. Criminals are included in this submerged tenth. Criminologists generally concede that criminals should be shut up and if possible reformed during their incarceration. It is also true that those who do not belong to the criminal class should not be placed in it. No one can say how

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<sup>3</sup> *North American Review*, August, 1904. "Obstacles to Reform in Turkey," by Charles Morawitz.

<sup>4</sup> Elwood Mead's Review of Irrigation Investigations in the Annual Report of Experiment Stations for 1902, pp. 374-5. United States Department of Agriculture.

large the class of natural criminals is, but it is much smaller than has often been supposed. When we look at the facts of the case we discover that in our bungling we have been making criminals of men. It is as true as it is trite to say that the ordinary country jail is a school of crime. Through juvenile courts and modern methods we know how to reduce the number of criminals.

We have also to consider the feeble-minded who require custodial care, and those educational methods that will give them the highest development possible. At the same time they must be confined to prevent their reproduction.

There are the insane who are not equal to the strain of modern life. Thus we could continue. Those left behind in the transition from stage to stage and from phase to phase represent an unchanging class of beings which can be limited only through the control of reproduction of the human species. Something can be done in this direction and is being done, as for example, in Wisconsin, where the feeble-minded are confined; and in Connecticut, which has the most advanced legislation in this country on the subject of marriage.

The main industrial problem is found in the conditions of the great mass of men who are capable of development but must be helped to meet modern industrial conditions.

With every stage of advancement adjustment becomes more expensive on account of the greater demands which the more complex society makes on the individual. This is part of the price of industrial progress, and it can be paid through the very increased productivity which is the cause of the higher price.

The great problem, then, is the creation of institutions to meet the needs of the different elements in the community, if they are arranged into classes to correspond to their mental and moral characteristics. We have as a matter of fact been creating such institutions during the past one hundred years. All civilized lands have been engaged in this activity, and they have created institutions to serve classes of men with widely varied needs and capacities, even in opposition to preconceived and generally accepted theories. This has been particularly the case in the United States.



I believe that this is an explanation which throws new light on social progress. The movement is destined to continue, as it is an inevitable outcome of that mighty struggle for equality of opportunity which is shaping human history.

This same economic problem exists also in our dealings with those of other nations. It is a problem, for example, to what extent landed property, in severalty with its free sale and purchase, is adapted to those tribes of people who have not acquired the type of mind which has been gradually evolved by the most civilized nations.

Let us once more consider the case of the North American Indian. If this line of argument is valid, is it possible that in a few short years he should become adapted to that form of property which the most highly developed people in the world have achieved after an evolution of hundreds and thousands of years? If the problem is to change the nature of the Indian, must not our institutions be shaped to his conditions and allow him generations to adapt himself to the most modern institutions? If this line of argument is true, it must be expected that as a result of their holding property in land in severalty the Indians will lose their land. To prevent alienation of the land allotted to the Indians for the period of twenty years seems absurd when the real problem is a change of Indian nature.

This line of thought, that institutions adapted to the needs of the various classes in the community must be provided, leads to the problem of insurance.

The gifted and capable can make their way, when they do not meet with accidents, in a competitive society based upon private property. It is absolutely impossible that the ordinary man should prepare for all the contingencies of modern industry. Accidents may befall the worker just at the initial period of activity, and they may come in middle life. It is not possible for the ordinary man with ordinary wages to make adequate provision therefor through his own unaided efforts. The solution of the problem of contingencies is found in insurance, which is making such rapid headway throughout the world, and has developed farther in Germany than in any other

country. There is no greater labor problem than that of insurance. This can be provided by government or by private individuals. In the United States great private corporations are working successfully in this direction. There are obvious limitations to what can be accomplished by private effort. A great proportion of the wage-earners must always be employed by private individuals or by firms and corporations not sufficiently powerful and stable to furnish satisfactory insurance. Apart from this, there arises the question, To what extent a really desirable freedom of movement will be impeded if employment and insurance are furnished by the same persons?

I think it is now generally conceded that the risks of industry should be borne as a part of the cost of production, and this must be secured by general measures. England has gone as far as possible perhaps through employers' liability. The investigations of the Industrial Commission of the United States show that, to a very great extent the blame for accidents cannot be laid either on the employer or on the employee, since accidents are a natural outcome of production. In many cases there is blame, especially when the best safety appliances are not provided; but the establishment of blame does not bring with it a remedy for the economic incapacity of the individual wage-earner. Much governmental activity in the way of supervision is required to make the industry bear the burden of the accidents and contingencies which befall the workers, and to make indemnity certain.

The question of pensions is closely connected with that of insurance. With old age there comes the appropriate period of rest. Competition has done its work and society has no further economic services to expect from the individual. The problem is to provide for those who have reached old age without weakening the springs of right economic activity.

With a high ethical level of competition there is suggested a large number of problems and appropriate methods for their solution. Society determines what we may call the rules of the game, and does so in accordance with its ideals, which gradually become clearer as social self-consciousness becomes more pronounced. This determination that no child under fourteen shall be employed



in a manufacturing establishment does not lessen competition, but rather makes one of its conditions.

We have suggested in the United States the subject of interstate competition and, for the world as a whole, the subject of international competition and its bearing upon the general level of competition. In local matters it is impossible to rely upon voluntary effort, because there is the problem of the twentieth man who, through the force of competition, tends to drag others down to his own mean ethical level; so it would seem that in one state or nation we cannot rely upon other states and nations to establish as high a level of competition as we might desire. This subject has been agitated more or less for three-quarters of a century, but little that is very tangible has been reached so far. An International Labor Conference was called by Switzerland fifteen years ago, but Switzerland gave way to the German Emperor, William II, and a congress was held in Berlin, March 15 to 29, 1890. The first international treaty designed to protect labor is that between Italy and France, dated April 15, 1904. A beginning has been made and that is all that can be claimed. Fortunately, up to the present time it has not been clearly demonstrated that any nation, or even a state within a nation, has suffered on account of a high level of competition. Success in competition depends upon the kind of man who is engaged in industrial pursuits, and a high level of competition naturally means a larger and better man; and consequently an ability to maintain one's own in competition. Those nations and parts of nations which have done the most for the workers are, generally speaking, most dreaded in competition. It must be admitted, however, that as the associations become closer in our economic life and as world economy gains relatively upon national economy, the problem of international economic legislation, particularly international labor legislation, gains in importance.

The presence of monopoly in modern industry is revealed by a survey of industrial history. Monopoly has existed in the past, as well as in the present, in all civilized countries. In a study of the industrial history of England we come upon the words "monopoly" and "exclusive privilege" on almost every page of the

history. The ceaseless iteration of the terms becomes wearisome. So far as monopoly itself is concerned, meaning thereby exclusive control over some portion of the industrial field, there is nothing new. The character of monopoly has simply changed with the progress of industrial evolution. The significant monopolies of our own time are those which are extra-legal. They have not grown up as a result of the intention of the law-makers, nor indeed have they come as a result of any conscious desire on the part of society as a whole. Certain industries have shown monopolistic tendencies by virtue of their inherent properties, and there is an increasing tendency in civilized countries to recognize this fact and to make these pursuits, the so-called natural monopolies, also legal monopolies, in order to prevent waste and secure certain gains resulting from monopolistic methods. It is recognized by the common law of England and America and, I think I may say, by what corresponds to our common law in other countries, that private monopoly uncontrolled is a menace to public weal, inasmuch as it removes the benefits of competition and creates special privileges. Monopoly due to external conditions is not like those extra gains coming to one as a result of peculiar excellence and which are suitable rewards for social service. The monopoly due to external conditions or to facts and forces external to the individual tends, so far as we can judge from history, to repress initiative and invention of the individual. Consequently, the extra gain from monopoly is a gain not for social service, but for social disservice. We have rewards either without service or without adequate service. We have, then, a special privilege which is hostile to the general interest and particularly to the wage-earning classes.

The problem, then, before us is a problem of control of monopoly in such a way that we may remove the oppression of laborers and others and retain equality of opportunity. This control may be secured either through direct ownership and management of the monopolistic industry or through regulation. We find both methods resorted to. In the case of industries of a routine character which can be carried on in accordance with certain general principles, public ownership seems, on the whole, to secure better results. It is in accordance with the principles of property to give control,



but private ownership and public control are two antagonistic principles. This industrial problem carries with it a great many attendant problems. It is enough at this time and place to point out the nature of the problem. A general survey of industrial history and present economic industrial life shows, and in my mind demonstrates, the futility of efforts to suppress the large organization of capital and the large organization of labor. The only right method can then be to guide and direct both kinds of organizations in such a way that they may subserve the public interest.

What has been said in regard to industrial problems is general in its nature and designed to be merely suggestive. It presents specific problems of industrial society as problems produced by industrial evolution, and also as problems which are largely psychical in their nature. The laws and institutions demanded are those which are required to meet the needs of the various classes in the community which are almost infinitely varied with respect to acquisitions, achievements and capacities. We present one side of the problem when we say that institutions must be created to answer the needs of the various classes in the community. We present a different side of the problem when we say that an attempt must be made to adjust all members of a society by educational processes to their physical, and more particularly their social and economic environment, in its highest manifestation. This gives the dynamic side of the problem. An attempt must not simply be made to meet the needs of a class with a low average of mental traits and moral characteristics, but also, so far as possible, to raise each class to a higher level. These are the two great lines of movement along which modern nations are trying to solve the industrial problems of the present age.

## A THEORY OF HAPPINESS

WILHELM OSTWALD

THE collected letters of Friedrich Nietzsche, published in 1900, present a very interesting fact. He complains in his earlier letters about his condition, his health; but these complaints disappear a few years before his mental collapse, and give way to a joyful, even dithyrambic mood, although his health grew constantly worse and his outward circumstances showed no improvement.

I find that this is a universal phenomenon. The progressive paralysis, to which Nietzsche had fallen a victim, regularly produces in the patient such feelings of happiness. These invalids feel all-powerful; they imagine that they are distinguished persons, and believe that to do some extraordinary thing or to have enjoyment depends merely upon their will; they keep no account of the results of their imaginary undertakings, and do not carry them out. If this particular case is brought under a general rule, it is still difficult to understand how these poor incurables attain happiness, an end for which normal, yea preëminently gifted, persons strive more or less in vain throughout their whole life.

In a recent work<sup>1</sup> I developed the idea that the lasting sensation of pleasure or the feeling of happiness is achieved through a successful exercise of energy, and this idea I have supplemented in order to make it a universal theory of happiness. With the paralytic, a successful exercise of energy is manifestly impossible. There are states of indolent living or dreaming which these persons think are happy, and which therefore seem to contradict my idea. I have consequently sought, in the first place, to define the various kinds of happiness; to supplement my idea in such a way that it will comprise those cases which could not be brought under the original definition, and these I have amplified. In this way I have finally arrived at a statement which I believe is sufficiently comprehensive. I shall not again present the several stages of this difficult and often interrupted investigation, but shall

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<sup>1</sup> "Vorlesungen uber Naturphilosophie," Leipzig, 1902, p. 388.



give the last-discovered formula, which I have not improved upon.

The exercise of energy is one of the two decisive factors in the development of human happiness. Here the word energy is not used in the moral, but in the physical sense. The amount of energy put forth is proportionate with the amount of carbonic acid secreted by the organism. This quantity is the measure of work done by the body, partly as mechanical or mental activity, partly as the necessary expense for the preservation of life, for the generation of warmth, for heart-action and the exercise of all the remaining functions of the body. The amount of carbonic acid secreted is not a perfectly accurate measure of the energy spent, because the kind of nourishment and a few secondary reactions in the organism must be taken into account. But the corrections in this method of measurement are so slight that they may be ignored without harm. Although I shall later on put my views into the shape of a mathematical formula, yet I must emphasize, even now, that an exact quantitative test of this formula is not to be thought of. We can say that we feel happier in one condition than in another, but a real measurement we cannot make. We cannot say that yesterday we were three and one-half times happier than to-day. Consequently the mathematical formula will only have the significance of expressing approximately the series of intensities of pleasurable sensations. For this reason the physiological error indicated above will be of no consequence for our investigation.

The second positive factor in happiness is the circumstance that what happens is in harmony with our desire. The object of the desire may be rational or irrational, advantageous or injurious to health, and at times a means of destroying life, but in every case the thing which happens is what is wanted, and is thus a cause of happiness.

In order to measure this factor, we may say that it is proportionate with the amount of energy deliberately put forth. There seems to be no reason for doubting that the quantity of energy spent in the brain runs in proportion with the intensity of volition. An exhausted brain is unable to produce palpable will-power, and an unusual exercise of the will inversely brings on extraordinary fatigue. It may be noted in this connection that different persons

exercise their supply of energy in the form of volition with varying facility, so that to an equal expense of energy, measured by calories, very different acts of will may correspond. Thus a personal factor enters into the equation, and more will be said about it later on. The usefulness of the formula, however, is not cancelled, because this personal factor comes into play for all the remaining uses of human energy, particularly the sensations. The picture will be somewhat disarranged, but it will not be distorted and rendered useless.

If E stands for the amount of energy voluntarily exercised, W for the amount of energy exercised against the will during the same time, I offer the following equation as the aptest representation of the facts: H stands for happiness,—

$$H = (E + W) (E - W) \text{ or } H = E^2 - W^2.$$

I cannot help fearing that the reader will regard this formula as idle play, and I wish, therefore, to insist that this is a way of illustrating observed and approved facts, and is clearer than all formulæ of verbal form. This formula has guided me correctly in choosing between a number of possibilities which demanded resolutions of greatest consequence for my own welfare and that of my family; and I hope that the reader will at least be interested to try and understand this exposition.

Since E means energy exercised voluntarily, and W energy put forth against the will,  $(E + W)$  means the entire active energy, in so far as it is related to the will. This is only a fractional part of all the active energy in the entire organism. Moreover, in the subconscious physiological functions, the circulation of the blood, digestion, a considerable quantity of energy is used up; and the equation says that it plays no part in our happiness. Thus there seems to be a controversion of the fact that young people, in whom these quantities of energy are particularly large, generally feel much happier than their elders. But such happiness is wholly dependent upon the will. If a young creature is prevented from exercising this voluntary energy, without impairing the metabolism of its physiological energy, it will immediately feel unhappy. But sleep, in which the transformation of energy is naturally confined to the physiological side, is not attended *per se* by any pleasurable



sensations, because it is an unconscious state. Tired persons have sensations of comfort when they are not forced involuntarily to expend energy; and there are agreeable sensations after profound sleep only when there is the prospect of exercising, in conformity with our will, the supply of accumulated energy. The captive, for this very reason, does not awake with pleasure, but welcomes the sleep that will interrupt his misery. The man, however, who is engaged in successful work feels pleasure in awakening.

The second term ( $E - W$ ) represents the difference between the amount of energy spent voluntarily and that exercised against the will. It has positive or negative value as  $E$  is larger or smaller than  $W$ . Negative value means, of course, unhappiness.

The formula expresses our willingness to take upon ourselves all sorts of things which in themselves we would not do or undergo, but which are connected with other things agreeable to our will. Willing and unwilling action thus stand in the relation of positive and negative quantities, inasmuch as they can diminish or cancel each other. Here again there is a strong personal factor; there are people, especially those who have in the course of their lives met with little opposition, who feel resistance much more intensely than a voluntary exercise of energy. They are made unhappy by the slightest obstacle. Likewise there are people in straitened circumstances who feel the mere cessation of daily pressure as so much happiness. These facts may be expressed in such a way that the zero or level from which positive and negative energy must be computed are determined by the general habits of life of the individual in question. If certain voluntary or involuntary processes happen regularly and without special exertion, they disappear from consciousness and are no longer objects of voluntary sensation. This must always be taken into account in the measurement of  $E$  as well as of  $W$ .

If we call ( $E - W$ ) the volitional surplus, we may express the purport of our general formula as follows: Happiness increases with the total exercise of energy as well as with the volitional surplus. ( $E + W$ ) can never become negative, and therefore unhappiness exists only when  $W$  is larger than  $E$ . Unhappiness can set in only as the volitional surplus becomes negative,

when the energy unwillingly spent exceeds the volition. It is, however, impossible for either happiness or unhappiness to become infinite.

We will now apply our formula to the practical question: What am I to do, in order to be perfectly happy? Both factors  $(E + W)$  and  $(E - W)$  must become simultaneously as great as possible. And if this cannot be, then one of the two factors must be as great as possible. Hence there follow corresponding types of happiness which we will take up successively.

$(E + W)$  represents the type of heroic happiness, after its best-known examples. The individual overcomes all obstacles. Men like Alexander the Great and Napoleon I. have changed the external conditions of nations; they have brought about great progress in culture and science, and it seems inevitable that in the course of their activity they should feel very happy; failure to attain their ends would be the greatest calamity to them.

This species of happiness is, of course, not confined to those single individuals whose activity has left clear traces upon the history of the race. In what measure the will is gratified in the face of untoward circumstances, is determined by these same circumstances. Thus a peasant who by his own efforts becomes the wealthiest man in the village may feel the satisfaction of the conqueror who has subjugated a country. But it must be remembered that, under all conditions, the quantity  $W$  represents a limited value, and that although the exercise of the total energy be great, its value for happiness is less in proportion as the opposing forces  $W$  approach the volitional quantity  $E$ .

In the development of this idea we shall constantly have to consider the durability of happiness attained in this manner. In the first place, the formula is only for the time during which there is an exercise of energy. Later on the consciousness of having experienced the happiness in question causes a continuation of the happy sensation for some time after; an after-affect which, by its very nature, grows weaker and weaker. I doubt, whatever poets may say, if one great experience of happiness can fill a whole lifetime with splendor. Such an event in one's life in all probability begets the wish that experience repeat itself. And then the weak-



ening effects of habit will set in, and the intensity of the happy sensation will decrease with repetition. In other words, the condition, previously attained, serves as zero-mark or level to which all subsequent experiences are referred, and happiness, repeating itself in exactly the same way, will finally be felt as a normal condition; and if this condition be interrupted, then the individual will have a sense of misfortune.

This peculiarity of our psychical organization, which after all makes unfortunate conditions bearable, causes great variations in the durability of happiness; it is the means of valuing the ways happiness can be attained. The drunkard is doubtless happy when he is intoxicated. But the value of the means to this happiness is estimated very low, because it is vicious, injurious to the individual and to society. All activities, however, which injure while they cause happiness are not bad; the scholar or statesman, for example, who ruins his health in the interest of science, or of his nation, is thought worthy of highest praise, when once the results of his work are substantially beneficial to the community at large. There is a great difference in the secondary effects of these two methods. One addicted to vice is usually ill during the interval between indulgences, and he feels the disapproval of those around him as a kind of opposition. He who sacrifices his health for the general good is made happy by the approbation of his fellow-men: his voluntary actions meet with less resistance. A man that can work voluntarily and happily, receive the applause of the world, and avoid the injuries from over-exertion, will enjoy happiness of high degree and long duration.

In addition to these conditions, the duration of happiness will further depend upon outward circumstances. A man who has risked his own life in the rescue of another will certainly feel happy, but he cannot expect to draw his whole supply of happiness from such events. Inversely, a scientist can expect the means of his happiness, the solution of scientific problems, to last indefinitely; but he must reckon with the ultimate decline of his powers. One must, therefore, in the interest of lasting happiness, seek those kinds of action which are not exhausted in the doing. The highest forms of happiness are, accordingly, connected with high

values of the first factor ( $E + W$ ), and consequently with high values of the total exercise of energy; a difference,  $E - W$ , however favorable, cannot compensate for a low value of the sum total. High values of energy presuppose a normal and strong organism, and it is evident that health is very necessary to happiness. A delicate organism may attain a relatively fair amount of happiness by a corresponding reduction of the  $W$ -values, yet it must be content, in general, with poorer and rarer enjoyment.

The second factor ( $E - W$ ) of our equation shows at first that when the values of  $E$  are very high, but less than  $W$ , a negative result, unhappiness, can follow. This yields us, in first place, the theory of subjective pessimism (not of theoretical pessimism, which has nothing to do, directly, with subjective happiness). Such pessimists—Lord Byron, Leopardi, and Schopenhauer are examples—regard life, in general, as an incomprehensible and suspicious affair. They have such a strong feeling of the obstacles ahead that they anticipate their effect and are given up to the idea that opposition will prove inevitably greater than their volitional energy. In the same manner they see constraint and cruelty about them, so that objectively, too, the  $W$ -values predominate. Such a view of life is very apt to lead to certain pathological phenomena, which we will consider later.

Life seems fraught with opposition of various kinds and magnitude, and it is difficult to know how this opposition can be diminished or removed. It is possible to neutralize or attenuate the opposition, and again to choose a mode of life in which resistance is rare or entirely absent.

Money affords an effective means of neutralizing opposition. It enables us to overcome obstacles of every sort, brings into our possession things belonging to others which we desire. It is becoming more and more the universal expression of power, and represents easily available resources of energy which can be brought under the command of a single individual.

Power is the possession and command of energy. The ruler of a nation or the great orator can direct according to his own will a corresponding amount of energy in other persons or things. The possession of money, which is the most universal equivalent



of all other kinds of power or energy, enables one to command the world's energies without.

The function of money is chiefly in the removal of obstacles. The gain in happiness after the acquisition of moderate possessions grows smaller and smaller. In order to secure a really considerable amount of happiness the positive factors, discussed above, are necessary; if they are absent, the owner of much money, characteristically enough, does not know what to do with it. This is seen most strikingly in the case of those who have spent the best part of their life in getting money, and in neglecting their interests in art, science, benevolence. Such people finally make the acquisition of money, irrespective of its use, the sole concern of their will. These phenomena, too, very commonly take a pathological turn. The children of such people, brought up in luxury, are often still more badly off, if they, too, are without those other lasting contents of the will; for even the fascination of getting money is unknown to them.

It is possible also to reduce  $W$  by choosing a mode of life in which there is a minimum of opposition. This is the happiness of simple life, the happiness of humility and contentment. In this way one can get much happiness, even though the active energy expended represents quite small values; the negative quantities of the equation  $(E + W)$   $(E - W)$  are very small, and therefore only positive quanta remain which, as the equation  $E^2 - W^2$  shows, grow in duplicate proportion with the voluntary energy. Much of the opposition in life comes from the interference of others, and a comparatively solitary life engaged in successful work is the basis of the greatest happiness of this kind. The philosophical recluse, the scholar and the artist (who does not perform personally in public), according to abundant testimony, attain to very high values of this happiness. The amount of  $E$  is often very considerable in such cases. As it grows less, then man is content with a modest performance, and finds satisfaction in his occupation and family life. The highest possible freedom from opposition, in fine, is secured by limiting the necessities of life as much as possible, and gaining an independence of external factors. This is the type of the stoic, the hermit. The constant recurrence

of this type throughout the whole course of history shows that in this way, too, considerable happiness is possible. In times when external affairs are particularly unsafe and happiness depending upon them is apt to be ruined, we frequently meet with organizations like those of the anchorites and monks.

It is proper to speak here of the social conditions which make for the happiness of the individual. The relations with others, especially at certain periods of life, may be a source of most intense happiness, and, conversely, of the profoundest unhappiness. Is it wiser to aspire to such happiness at the risk of unhappiness? A man of a pessimistic turn of mind should not enter into close relations with others: he should not marry. The prospect of his being cured of pessimism, in a happy married life, is very slight, and if the cure miscarries his companion will have much to suffer. An optimistic man, however, may have extensive relations with others, and he will naturally be sought after. But such relations are always carried on with variable amounts of gain or loss, and it is well to be cautious about entering into too large associations. Such a plan of life requires that one must be able to give enough to make one's relations with any larger circle durable. It follows that work in the service of a profession, of a clan, a people, finally of all mankind, is the most fruitful and lasting source of happiness.

Our reflections have thus far been based on the assumption that the intensity of feeling for voluntary and compulsory exercise of energy moves within the usual or normal limits. It has indeed been necessary to point to differences which appear as optimistic and pessimistic humor; but extreme cases have not been considered. They are on the one hand comparatively rare, but not morbid moods, and on the other pronouncedly pathological.

The amount of the quantities represented in our equation are not to be measured by their absolute value, but by that portion which is felt; and the same objective state can be a great happiness for one and a great misfortune for another. Upon this consideration the way to happiness lies in the increase of feeling for  $E$ , the voluntary portion, and a lessening of the feeling for  $W$ , the involuntary portion.

Practical philosophy and religion play a prominent part in this



respect. Most of these systems lay stress upon the second part of the task: the reduction of feeling for W. Thus ancient stoicism teaches contempt of the outward blessings of life, so that their absence may not be felt as a misfortune. Hindoo philosophy, with the same purpose, extends the feeling of personality or the "ego" to as large a circle of beings as possible. And Christianity adds to altruism and contempt of this life the hope for a blessed life after death that shall be in perfect harmony with the will.

Apart from the usual effects of religion upon the average man, there are those which cause the individual to experience revival, sanctification, conversion, etc. These states are very interesting for our purposes, because they impart happiness in an extraordinary degree. Special attention has been paid in recent times to these phenomena, and it has been found that they run their course with great regularity. They are always preceded by profound depression; the individual feels unhappy, sinful, abject, and damned, and cannot rise by his own power from this condition. Here the W-quantities are felt with unusual intensity. Then suddenly, and in a very short time, statable to a minute, an opposite condition sets in. The individual feels as though all the unbearable burdens were taken from him, because he can trust in a higher power, which does for him all that he alone attempted in vain. It is not possible here to investigate the basis of this feeling; but it is enough to have proved that the experience of religious happiness is causally connected with the disappearance of the feeling of opposition.

There are other fields, very remote from human psychology, where the same reaction is seen. That the sense of opposition is apt to disappear permanently on account of pathological changes in the brain, was mentioned at the outset as a phenomenon characteristic of progressive paralysis. The neurasthenic person shows the opposite condition. With him the feeling of opposition is excessively increased; he is unable to form the slightest resolution; he cannot overcome the opposing forces, and thus is one of the most unhappy persons in existence.

This sense of opposition can be temporarily eliminated by the use of certain substances, particularly narcotics. The pleasure derived in this way explains how at very primitive stages of civili-

zation such substances were known and used. Alcohol, ether, hashish, opium, have the same effect.

The alcoholic question, in its social bearings, is conditioned by these facts. Alcohol is for the proletarian one of the easiest ways to get happiness, and that this happiness is transitory and deceptive cannot be understood by his poorly developed intelligence. One is even warranted in making the general statement that the use of intoxicating narcotics is restricted to those people who cannot get happiness in a more expedient and lasting form. Therefore it is, conversely, a very important duty of education to develop in a young person the ability to connect his indispensable pleasures with activities of general value.

One particularly bad feature in the use of narcotics is that after their effect has gone not only the normal but even an increased feeling of opposition returns, and in addition to the physiological depression, which is the result of intoxication, there is also a psychical dejection. The best remedy for such a condition is intoxication, and thus it is exceedingly difficult for a man to escape the vice.

Reflections of this kind could be made on a large scale; but we cannot enter upon them here, nor undertake the more profound problem of distinguishing between the voluntary and involuntary processes. It was here essentially a question of the practical task of getting, by means of the formula, a scheme with which to investigate individually the existing possibilities of a given concrete case, so as to gain a basis for a necessary decision. If, in such a case, we wish to investigate, in the first place, the influence of changes (coming with some resolution or other) upon the amount of E and W, and add thereto the question of the durability of conditions reached in this way with reference to happiness, we shall, as I am convinced by my own experience, arrive more easily at a decision with the aid of this formula than by the usual way of unsystematic reflection. Doubtless the formula offered here is capable of improvement and development; in any case, it will facilitate a further investigation.



# THE MYTHOLOGIES OF THE INDIANS

FRANZ BOAS

THE current ideas of mythology are based largely on our knowledge of the myths of antiquity which relate to a pantheon of deities, and recount the deeds of gods and demigods interpreted as representing creative processes and forces that govern natural events. These myths form an integral part of the religious systems of antiquity, in so far as they explain the character and functions of each deity; and mythology and ritual are closely interwoven. We also find clear evidence that local myths connected with local cults attained wide currency, and were fitted more or less systematically into the general system.

When we turn to the traditional lore and the cults of primitive tribes, much that is characteristic of ancient mythology seems to disappear. There is no pantheon of gods, and in its place we find a disorganized multitude of more or less powerful beings; consequently their mythology seems to have no internal unity, and it rather impresses us as a mass of disconnected tales. For this reason the myths are apt to appear trifling, silly, and inadequate to the philosophic and religious needs that we think they should supply.

This feature of primitive mythology was particularly striking as long as our knowledge was fragmentary and the mental condition of the tribes in question not well known; while a more thorough study of the mythology itself, and of its correlation with general cultural conditions and historical events, has revealed in these tales a much deeper significance.

The systematic collection of mythologies of primitive tribes has perhaps progressed farther in North America than in any other country. At the same time, the stages of culture in North America are so varied, and the mythologies differ so much in complexity and character, notwithstanding a general family resemblance, that their study promises to shed clear light upon many problems of comparative mythology.

Before taking up the characteristics of North-American myths, we will briefly examine the character of the available collections.

Some of the current notions relating to Indian mythologies must be eliminated from our consideration, particularly the ideas of the Great Spirit and of the Happy Hunting-Ground, which are due to Christian misinterpretation of native ideas. We must avoid all collections thus vitiated, and rather search for those collected objectively, in the words of the natives, and in his own language. Literary quality, that makes the myths attractive to our æsthetic taste, counts for nothing in our study. We must search for the qualities that make the tales attractive and significant to the natives. Philosophic and religious views imputed by the collector render the myths useless for scientific purposes. Neither can we accept scoffing accounts of semi-christianized disbelievers, or the exaggerated descriptions of those admirers of the American race who would interpret all their mythologies as expressions of deep philosophic thought. Our material must be gathered from the mouth of the plain tribesman, as well as from the chief or priest who in leisurely contemplation may have welded the beliefs and tales of his tribe into a connected structure.

The method of collecting will therefore differ, according to the type of culture of each tribe. Among the arctic Eskimo and among the loosely organized bands of tribes of the western highlands, where social differentiation is very slight, almost every old man and every old woman is a satisfactory storehouse of information. Among the tribes which have a well-developed clan-organization and clan-traditions, like those of the Northwest coast, our collections must embrace the clan-tradition as told by the clan whose property it is, and also by the outsiders. In other regions, where the myth is closely related to a ritual that is intrusted to the care of priests or chiefs, their esoteric teaching, as well as the exoteric knowledge, should be recorded, since the former does not represent the folk mythology, but is the knowledge of the select few.

A very small portion only of the available material conforms to the critical standard here demanded, and in many cases we are compelled to use collections that are obviously unsatisfactory. Nevertheless, a number of characteristics of American mythologies stand out quite clearly.



Perhaps the most important of these is the idea of the existence of a mythologic period which preceded our present time. In that period there was no distinction between man and animals. The animals were men dressed in skin blankets, to which they owed their animal form, and they could assume human form by taking off their blankets. As men, they retained more or less their animal characteristics, but they mingled and intermarried with men, with whom they were of one blood and of one kind. Then followed the great age of transformation. Some of the beings of the mythological age, in contests with one another, or in encounters with more powerful beings, were given the form of animals, and lost the power to assume human shape at will. By the events of this period, which form a large portion of the mass of American mythologies, the world generally assumed its present shape. The earth, the mountains, the sea, the rivers, came into existence; monsters that endangered life were vanquished; sickness and death originated: in short, the mythical age gradually came to a close, and the world was left as we see it now. The animals may still be transformed men, but to the eye of ordinary mortals they do not appear in human shape. Their powers persist; they may wield them and punish their pursuers, or help the mortal who gains their friendship. Sun, moon, and stars, mountains and rivers, have not lost their mythic characters, but to the eye of the uninitiated they show neither their true form nor their powers.

The distinction between the mythical age and the present age is not by any means clearly defined by all the tribes. While it is almost absent among the arctic Eskimo,—to whom this world has always been essentially human,—it is one of the fundamental characteristics of the mythologies of most of the tribes of the rest of the continent. A few are still so strongly imbued with the idea of the superhuman powers of animals that among them the mythic age may be said to continue even now. The contrast between the two periods appears most clearly when the first period is brought to an end by the appearance of a Transformer, who, in his encounters with animals, monsters, and people, gives them the form in which we know them. This type of tradition is characteristic of the Pacific coast, of the tribes of the Plains, of the Prairies, and

of the Northwest. Since the Transformer meets the animals generally in hostile encounter, and wrests from their possession some of the things needed by mankind, but withheld from common use by their jealous owners, he appears also as the Culture Hero. He gives to mankind the light of heaven, fire, and water; he assigns animals to serve as food; he creates objects that did not previously exist; he teaches man the arts that he practices today, and institutes the laws, and particularly the rituals, that are to hold sway for all times to come. Thus the Transformer is in many cases the central figure of Indian mythology, the great benefactor, without whom man would have remained a dumb brute. In most cases he is not a creator. The things needed existed from the beginning, but they were not available for the needs of man. In a general way, the philosophic idea that all things must have had a beginning does not seem to have appealed as strongly to the Indian mind as the idea of indestructibility, and of eternity of existence; so that to his mind the idea of creation did not present itself as readily as to the Oriental imagination.

Another peculiar trait of the Culture Hero, or Transformer, is quite common in North America. He is not only the benefactor of mankind who vanishes hostile monsters, but he is at the same time the trickster, who tries to cheat and to outdo every one he meets, and who suffers ludicrous defeat oftener than he succeeds. This trait is one of the most striking features of the origin legends of many parts of America, from the Pacific coast across to the Atlantic. Even where the two kinds of stories are not told of the same mythic personage, we find that both are present,—one hero being the transformer, while another impersonates the foolish trickster.

It follows from what has been said that animals play an important rôle in Indian mythologies. Since the animals are considered as human beings, they generally appear living in villages and in a form of society analogous to that of the Indian,—organized in clans where clan-organization exists, and living in loose village communities where that form of social life prevails. The heavenly bodies, thunder and lightning, wind and clouds, appear sometimes in animate form as heroes of myths, sometimes as ob-



jects owned by supernatural beings, or as their domicile. In most cases they are prominent in mythical tales, and their present form and movements are accounted for by many traditions.

Plants are conspicuous in many American mythologies. To the popular mind the Indian still appears as the wild hunter, and the importance of plants in his household economy is hardly known. As a matter of fact, the roving buffalo-hunters relied to a considerable extent on roots and berries; the poor nomads of the desert Western plateaus were assiduous in gathering seeds; the Californians almost subsisted on acorns and other fruit; the fisherman of the Northwest had his root-gardens and berry-patches; the Indian of the Great Lakes had fields of wild rice. On the Atlantic coast and in the whole country east of the Mississippi, as well as on the Gulf coast and in the Southwest, agriculture supplied many of the needs—in the South most of the needs—of the natives. Indian corn took the first place in his household economy; and hardly less important were beans and squashes, not to speak of wild roots and berries. Therefore in myths the plant often occupies a conspicuous place: and its conspicuousness increases with the greater agricultural interests of the people. The mythical corn-mother and corn-maidens are expressions of the respect in which this plant is held.

Man appears as an actor in all myths; in a few cases almost to the exclusion of animals, plants, and inanimate objects. It has been mentioned before that this type of myth is characteristic of the Eskimo. In other cases the mythical events take place in a human environment; the animals are treated like men, and form part of the human community.

It is obvious from what has been said that a large portion of American mythology accounts for the origin of the world as we know it; but the origin myths of any one tribe do not form, on the whole, a continuous and systematic unit. They are disconnected and full of contradictions. In one myth of a tribe, the sun may be spoken of as the house of a deity, and in another he may be the deity himself. He may be, now an inanimate object carried about by a deity, then a powerful chief. There is no need of a regular sequence of the events of creation, but they may all

be of an anecdotic character, so that contradiction between different tales would not come very strongly to the notice of the people. It would seem that in the Southwest and in California the systematization of mythical material has made considerable progress, so that fairly consistent mythologies have developed in which the episodes of the origin myths appear in a fixed and more or less connected sequence. It seems desirable to illustrate these general characteristics a little more fully by a description of the main traits of a few typical mythologies. I will begin with the simple tales of the Eskimo of the Eastern Arctic coast.

The most striking feature of Eskimo folk-lore is its thoroughly human character. The events which form the subject of their traditions occur in human society as it exists now. The world has always worn the same aspect, and in the few stories in which the origin of some animals and of natural phenomena is related, it is rarely implied that these did not exist before. In a strict sense of the term, the bulk of Eskimo tradition is not mythology, but consists of hero-tales which reflect with remarkable faithfulness the social condition and religious beliefs of the people. They treat of visits to fabulous tribes, of murder and revenge, of mercy and recompense, of feats of shamanism and of witchcraft. Thus the supernatural enters into them, but only in the same manner that it enters into the every-day life of the people to whom witches, guardian spirits of shamans, giants, and dwarfs are existing realities. In this sense most of the Eskimo tales are true tales taken from life, and show a great lack of imaginative power. Setting aside this group of hero-tales, there remain only a few entirely disconnected myths. One of them tells how a woman was mutilated by her father, who cut off her finger-joints one after the other. From these joints originated the sea-mammals, and the woman became their mistress. Another myth tells of the origin of sun and moon, who in the beginning were human beings, a brother and a sister, and who were taken up to the sky. An unmerciful mother thrown into the sea became the narwhal, her braid the narwhal-tusk. A deserted girl turned into a bear monster is the subject of another myth. All of these are so few and scattering, that we can hardly speak of a mythology which accounts for the origin of things.



The type of mythology found on the Pacific coast, among the Indians of Alaska and British Columbia, is quite different. The purely human hero-tales are not found here, but even those tales which are laid entirely in human society end with an account of the origin of customs peculiar to the Indians. Here is found the clear distinction between the mythic age and historic times to which I referred before. In the beginning the Myth-People existed; they were beings which were different kinds of animals when dressed in their blankets, and without their blankets were human. There was no sun, no moon, no ebb-tide, no fresh water, no salmon. Human beings had not their proper shape; they had no arts, and were poor and unhappy. Then the Culture Hero appeared, among some tribes in the form of the Raven, and among others in the form of a human being. By cunning device he liberated the sun and moon, which a mighty chief kept hidden in a box; he secured the ebb-tide by slackening the line by means of which another chief held the waters of the sea; he obtained the fresh water by pretending to take a little drink; he sent the salmon into the rivers by abducting the daughter of the salmon-chief and by throwing her into the water. Endless were the tricks and troubles by which he secured what is needed for a happy life, thus shaping the world and making it habitable for men. Finally he re-shaped the human body, and showed man how to fish, how to build houses, and all the arts that he now possesses. Not always was he successful in his attempts to remodel the world or to vanquish his enemies. Often he tried the impossible, and often his tricks were aimless. Then he appears as the trickster and buffoon, whose coarse and obscene tricks seem unaccountable when we think of all the benefactions that are ascribed to him.

While this Transformer legend is one of the main myths of the Northwest coast, it does not exhaust by any means the whole vast range of the mythology of these tribes. Favorite subjects are the ascent to the sky by a chief's son, and his marriage to the daughter of the Sun; the persecution of this hero by the Sun Chief, who endeavors to kill his son-in-law by giving him dangerous tasks to perform, and their final reconciliation and the return of the hero with wife and child to our world; or the abduction of a woman

by a powerful animal which is pursued by the bereaved husband, who follows the abductor to the depths of the ocean or to the mountain fastnesses until he succeeds in regaining his wife. In this tale, as in many others, the purely human and the supernatural elements appear closely interwoven.

It is characteristic of Northwest-coast mythology that all the tribes that inhabit this region are considered as indigenous, setting aside slight changes in location which have taken place in comparatively recent times. Among those tribes which are divided into few social groups only, their origin is traced back to the mythical period, and the myth is, at least in part, a portion of the general origin legend. Among other tribes, which are divided into a great many families, their origin is also traced to the beginnings of the world; but their legends are more or less disconnected, and tell how a bird came down from the heavens, took off his dress and became the family ancestor; or how a fish, or a wild beast, was similarly transformed, and how from him sprung a family.

A very large and characteristic series of tales of this area is what may be called "guardian-spirit tales," or, to use a word commonly employed to designate the guardian spirit, "manitou tales." The main feature of these tales is the retirement of a youth into the solitude, where he fasts and purifies himself, until he finally finds grace before the spirits which appear to him, give him their magic gifts, and thus bestow upon him the power to become great and mighty in his tribe. To understand the significance of these myths, we must remember that this practice of acquiring a guardian spirit is common to most of the Indian tribes, so that the myth is merely a transfer of an every-day experience into the domain of myth. The characteristic difference between the practice and the myth is that the latter is used to explain certain customs of the present time. The acquisition of the guardian spirit is ascribed to the ancestor of a family, and the gift that he received becomes the hereditary property of his descendants. The gift may be the property-right in a river or in some other material object; or it may be a coat-of-arms, or the privilege of performing a ritual. It may also be a taboo, that means the obligation to refrain from certain actions.



It will be seen from these remarks that the mythology of the Northwest coast is exceedingly rich, because there is a tendency to give every tale a mythical character. This tendency has had the effect of making the mythical world-pictures very obscure. There is such a wealth of tales accounting for customs and for natural phenomena that there is also contradiction without end. The concept neither of the form of the world, nor of its origin, stands out in bold and clear lines; but the fundamental notions are hidden by a mass of detail. The animals act as human beings; and only now and then, when they appear in animal form, are their animal peculiarities brought out in bold relief. In this respect there is a striking difference between the tales of the North Pacific coast and those of the Western plateaus.

Turning now to the highlands west of the ranges of the Rocky Mountains, we find a strong increase in the number of animal myths. More than anything else, the appearance of the vast cycle of coyote myths gives to the tales of this area a peculiar character. His foolish tricks, endless in number, would seem to be inserted only for amusement, if it were not that he appears always closely associated with the Culture Hero, the benign Old Man who protects mankind, and who at the end of the world will return accompanied by Coyote, and will bring back our beloved dead—as is told in one of the mythologies in which Coyote appears associated with the revered Transformer. The coyote tales are similar in character to the tricks of the raven told on the Northwest coast, but many of them have a character of their own. It may not be amiss to mention a few of these tricks here, in order to give an idea of their peculiarities. Coyote is engaged in boiling deer-meat. The Fox comes along and flatters him, saying that a chief like Coyote should not do menial work, and offers to boil the meat. While Coyote lies down in his vain pride, the Fox eats all the meat. He meets a Cannibal with whom he has a vomiting-match, and by deftly exchanging the dishes containing what each has vomited, he makes the Cannibal believe that he himself is a cannibal, and the Cannibal a grass-eater. He plays ball with his eyes and loses them, and has to use berries as substitutes. These tales and incidents are combined with a great many tales relating

to the mythical age and to the origin of various phenomena and arts. The continuity of the series of myths is here, if anything, less than on the North Pacific coast. Not only are the tales disconnected, but there is not even one clear-cut individuality, like the single Transformer, around whom origin myths cluster, and whose personality holds together a portion at least of the mythology. In his place we find often a whole series of transformers whose connection is very loose.

The mythology of the northern Athapascan of the Mackenzie Basin has much in common with that of the Plateau Indians. From what little we know, it seems to consist of a long series of hero-tales in which animals play an important rôle. One of the group of tales characteristic of the northern Athapascans is that of marriages between human beings and animals, clouds, and other beings. These tales, however, generally treat only of the fate of one man or woman and with that of their children.

We see therefore that, on the whole, the mythology of the northern and northwestern parts of our continent is disconnected, and does not form a systematic and unified explanation of the world.

A much deeper unity of thought is found among the tribes of the East and South, where the myths are generally woven into a complex system,—the more complex the more thorough the ritualistic organization of the tribe. One of the central concepts in the mythology of the Eastern Indians is presented in the tale of the Deluge.

At one time in the early history of the world all was water. On the waters drifted a lonely canoe, and in it were the Transformer and a few animals. The Transformer had no place whereon to set his foot: therefore he sent the animals, one after another, to the bottom of the waters to find the earth. None succeeded, until finally the muskrat came back bringing a little mud in its paws. From this the Transformer made the new earth, increasing the size of the crumb of earth by his magic powers, until it became large enough to be the home of man and of the animals.

This incident is woven into a number of the systematic tales of the Eastern Indians. The origin myth of one of the Central Al-



gonquin tribes, the Sauks, will give an idea of the general character of their mythologies.<sup>1</sup> In the beginning, according to their beliefs, the supernatural beings inhabited the earth, the world under us, and the sky. The greatest among them had two sons, who acquired magical powers of such potency that their father became jealous of them, and, with the help of the supernatural beings, tried to destroy them. They succeeded in killing the younger one; but the older brother escaped, and slew the murderers of his brother. He approached them hidden in a spider-web, shot them with his arrows, and then disguised himself as a shaman. Under the pretext of wishing to cure them, he killed them. The supernatural beings tried to kill him by burning the lands, and then by causing a deluge. From this he escaped, and had the animals bring up the earth, on which he created people. He sent his brother to the land of Sunset to rule over the ghosts. He himself taught man to grow corn in the fields, and all the arts of life. After that, he left our world, and built a home for himself in the icy north, whence he will return at the end of the world.

It is obvious that this tale, which is given here in the barest outlines, is knit into a much firmer unit than the tales of the Pacific coast. In it is given an account of the principal events in the history of the origin of our world. There are, of course, a great mass of tales and incidents in the mythology of this tribe that are not connected with the tale here alluded to; and there are others of a ludicrous character embodied in this serious account, in which the elder brother, the creator and benefactor, appears as a buffoon and trickster.

The difference in character between these Eastern and Western myths is so great that it may be well to record another account of the origin myth. For this I will select the Iroquois account.<sup>2</sup> Here the story begins in the sky, where a girl is born in a miraculous manner. She grows up, receiving instruction from the body of her

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<sup>1</sup> See William Jones' "Episodes in the Culture Hero Myths of the Sauks and Foxes." (*Journal of American Folk-Lore*, 1901, pp. 225 et seq.)

<sup>2</sup> See J. N. B. Hewitt. "Iroquoian Cosmology," (*Twenty-first Annual Report of the Bureau of American Ethnology*, pp. 127 et seq.)

dead father, and marries a chief near whose lodge a large tree grows. The chief is jealous of his wife, and orders his friends to uproot the magical tree from which light is shed over the world. He induces his wife to look down into the abyss thus opened, and, when she obeys, he pushes her in. She falls through space, and down below the animals deliberate how to save her. Finally she lands on the back of the turtle, who has proved that he is strong enough to support the earth. The turtle swims about on the endless waters, and the muskrat brings up the earth, which is spread over the turtle's back, increases in size, and becomes the home of the woman. Soon she gives birth to a girl, who, when grown up, conceives in a miraculous way and gives birth to twins, one of whom is born in a natural way, while the other one is born from his mother's armpit, thus killing her. Sapling, the natural-born, grows up to become the creator of man and of animals, the giver of corn, the inventor of arts; while both his brother Flint and his grandmother thwart his plans, and it is due to them that man cannot live in perfect happiness. Out of the body of his mother, Sapling makes sun and moon.

It is important to note that the accounts explaining the social and political organization of the Iroquois are also given as a long and continuous legend, into which are woven all the details of the rituals and laws of the Iroquois confederacy.

Californian mythologies south of that part of the Pacific coast characterized before are in many respects even more highly systematized than those of the tribes of eastern North America, to which they bear some resemblance. They generally begin with the creation of the world and its preparation for the Myth-People. The form of this portion of Californian mythologies differs from that of other parts of America in that the idea of creation is brought out more strongly. It begins with the origin or first appearance of the Creator, who then calls forth or makes objects needed to perfect the world, one after the other; while creations or transformations incidental to more or less complex stories, which are so characteristic of the other Indians, are almost absent in this group of tales.

In the creation tales of one of the tribes of Central California,



for instance, we find, according to R. B. Dixon, that<sup>3</sup> "in the beginning there was only the illimitable sea and the cloudless sky. Slowly in the sky a tiny cloud began to form, and grew till it reached considerable proportions. Then gradually it condensed, and, becoming solid, became the Silver-Gray Fox, the Creator. Then arose immediately a fog; and from this, as it condensed, and coagulated, as it were, arose Coyote. By a process of long-continued and intense thought, the Creator created a canoe, into which both he and Coyote descended, and for long years floated and drifted aimlessly therein, till, the canoe having become moss-grown and decayed, they had, perforce, to consider the necessity of creating a world whereon they might take refuge." Then follow the acts of the Creator by which the world gradually takes shape. The Myth-People appear. They are human in character. During the mythical period they are transformed into animals. The human race is made by the Creator, and comes to life at the end of the mythical period. The present mode of life is determined by the results of the actions of the beneficent Creator and of the tricky Coyote. Thus practically the whole mass of animal lore is fitted into one fixed cycle. The origin of animals and of peculiar features of the country belongs to the mythical period, while the deeds of Coyote mostly take place after man has appeared on earth. The struggles between Coyote and Creator are quite similar in type to the struggles between the twin-brothers of the Iroquois, to which we referred before. There also man is believed to be created at the spot where he lives. In fact, in most California mythologies it is told that the Creator made each tribe separately, at the places which they were to occupy.

The most elaborate and systematic origin legends are found among the tribes of the Southwest. Beginning with the creation of the world and the appearance of man, the development of the features of the present world and the history of the tribes are recorded in great detail and in a highly elaborate form. In contents these legends differ from those heretofore discussed in that

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<sup>3</sup> "The Northern Maiden" (*Bulletin of the American Museum of Natural History*, Vol. XVII, p. 335).

the people are not considered as autochthonous, but that much of the myth is taken up with the emergence of man from a lower world, and with the events that took place during his migrations until his final settlement in the later home of the tribe. Evidently a portion of these legends is semi-historical, although they are so intimately associated with myths that it is impossible to consider any part as actual history.

Good samples of this type of American mythology are the creation myths of the Zuni.<sup>4</sup> In the beginning, the Maker and Container of all created himself in form of the sun, and light came to be in our world, and the mists condensed into the sea. From the scums of the sea, which were made from the body of the Creator, the earth and the sky developed. In the depths of the earth developed man, all kinds of creatures, the offspring of sky and earth. These two then created mountains, clouds, and corn. Then the sun created from the foam of the sea Twins, who raised the sky and then descended to the depths of the earth, where they caused a grass to grow from the lowest cave successively through four caves, and along it they led mankind to the upper world. Here, in the light of the sun, the race attained the perfect form of man. Their chief had brought with him from the depths of the earth seeds of life. He gave to his people two pairs of eggs to choose from. From one pair of eggs originated ravens, from the other macaws; and according to their choice the people were divided into the Raven People and the Macaw People. These were divided into clans, and a number of religious fraternities were established. The people wandered about on the earth, which was still soft, but was soon hardened by the Twins. Then the people set out, guided by the Twins, to search for their home, the middle of the earth. On their travels they learned the arts of war, they were taught to raise corn, and their ceremonials were instituted. The whole social organization and the customs of the tribes are described as originating during this search for their home. The latter part of these legends gives an account of rituals and ceremo-

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<sup>4</sup> P. N. Cushing, "Outlines of Zuñi Creation Myths" (*Thirteenth Annual Report of the Bureau of Ethnology*, pp. 325 et seq).



nials, of divisions of the tribe and of accessions to their number, interspersed with teachings of priests of supernatural power.

The mythologies, of which the one mentioned here is probably the most elaborate type, not only are characteristic of the tribes of the Pueblos of New Mexico and Arizona, but have also developed among the Indians of the Gulf States. Probably their legends were not quite so elaborate; but the main traits of these migration legends may be recognized as far east as among the Creek.

Considering the mythological material here represented in altogether too brief outlines, it becomes apparent that its continuity, and therefore its æsthetic quality, is least in the Arctic and in the Northwest. In the East, Southeast, and Southwest, where political and social organization has attained a higher perfection and where the ceremonial life of the people is strongly developed, the origin story is also more fully developed. It is true that it does not always give a systematic account of those features that seem to our rationalistic mind of prime interest; but into it is woven the history of the origin of those phenomena around which centres the interest of the Indians. The land on which he dwells, the heavenly bodies, the important animals of the chase, the plants that give him his staple food, his own origin and that of human arts and institutions, are more or less fully and connectedly accounted for, not as though the ideal of Indian life had been present to the mind of a creator, but as in the stress and struggle of life they originated one after another.

It is curious to note the similarities and differences of the fundamental ideas of the Hebrew creation legend and of those of the Indians. To the Hebrew mind the world as it is now pre-existed in thought, and came into being by the materialization of thought. In the mind of the Indian it came into existence by the performance of a necessary action, which, once performed, had to be repeated by all future generations, or that created conditions which persisted. The Hebrew creation myth is based on the theory that the world is the material reflection of a will-power. Nothing exists except through this will-power. It is, therefore, psychologically a cycle, in which the objective world is re-interpreted as the

will of God. What is, is the will of God. The Indian origin myth assumes the world as without beginning. It accounts in a human way for the beginning of many objects and customs,—albeit the reasons be unsatisfactory to the trained intellect,—and is, therefore, more fully explanatory than the myths of the East.

In the preceding characterizations we have considered only certain features of Indian mythology. Besides these, there is present, even in the most highly developed, a great number of disconnected tales relating to the mythologic age, or dealing with the supernatural. These also have a considerable number of features in common, some of which are characteristic of America, while others are more widely distributed in primitive mythologies. I will mention only the prevalence of the sacred number 4 and its relation to the four points of the compass; and the related concept of the sacred number 5, in which to the four points of the compass is added the idea of centre or self; and the sacred number 7, which contains, in addition to the preceding, the ideas of zenith and nadir. Very often these sacred numbers, or rather the directions which they represent, are identified with various colors, which in this manner have symbolic significance.

If the general make-up of the myths which we have here discussed emphasizes rather the diversity of form and ideas, an examination of the constituent elements brings home far-reaching similarities. To illustrate these, it will be necessary to examine some of the mythologic elements in greater detail, and to study the distribution of tales. This will bring us to a consideration of the questions, How much of the mythological material is of native origin, and how much, if any, is common to more than one group of tribes? After we have cleared up these questions, it will be possible to discuss the religious and philosophic significance of the mythological systems, and to trace their history.



## THE TIMES AND THE MANNERS

THE annihilation of Rojestvensky's fleet in the Straits of Korea is a proper dramatic climax to a series of events that had already included the rout of Kuropatkin's enormous army in Manchuria and the capture of Port Arthur. No more than two or three naval battles known to history have been either so terrific in their destructiveness, or so fraught with significance. It is even possible that no battle by land or sea has ever more decisively turned the current of human events. For it is impossible to doubt that Togo's victory has decided two things forever. Absolutism in Russia is doomed. The government of the Czar has taken every desperate chance in the hope of yet stemming the tide of revolution, but no reforms of the petty sort can save it now. Religious liberty and practical freedom of the press have already been granted, and the Zemsky Soviet, which will convene in the autumn, will undoubtedly become a true parliamentary body, and Russia will take its place among the modern constitutional states. But at the same time her dream, or perhaps we should say the Romanoff dream, of Asiatic empire, is over. The yellow races, that ten years ago we thought of as destined to yield their world-old supremacy in the East to the devastating reforms of western civilization, will continue, as throughout the past, to rule their own destinies. Britannia and the United States together may continue, if they like, to rule the seas of the West. Japan henceforth will rule the seas of the East, and the awakening of China, when it comes, will be under Oriental and not Occidental auspices. We see in this certainty no occasion for hysterical alarm. The civilization of the East is a marvel of infinitely beautiful sentiments and arts, as truly as is the civilization of the West. It would be an immeasurable loss if it were to be annihilated by conflict with an all-conquering West. The world is still big enough for both its Orient and its Occident.

Addressing a meeting of the Free Religious Association, Mr. Edwin D. Mead recently ventured the opinion that there is no nation calling itself civilized where lawlessness, in all departments

of life, is so general as it is in America today. If this characterization of "the times and the manners" could be accepted at its face value as a final and adequate description, there would be no excuse for further inflicting these pages upon our readers. Happily, such terseness is incompatible with entire truth, and events are revealing unexhausted springs of civic virtue in the American people that, we may confidently hope, contain the promise and potency of moral healing. The awakening of Philadelphia, not only to shame and indignation, but actually to righteous belligerency, is a phenomenon that the wildest optimist could not have predicted three months ago. He would sooner have looked to see Abdul Hamid taking vows of poverty, chastity, and obedience. Since the days of Sodom and Gomorrah there have been few such carnivals of unbounded wickedness as the City of Brotherly Love has rioted in under the rule of the Pennsylvania Republican machine. One simple theory has been adhered to in all matters, great and small, namely, that tax-paying citizens were created by an all-wise Providence for the express purpose of being plundered by corporate and political thieves. The tax-paying citizens themselves have admitted the theory, and, as uncomplainingly and reverentially as the serfs of the middle ages, they have accepted their humiliating lot. There is a mean old saying, attributed to Benjamin Franklin, who probably never uttered it, that there are two kinds of people in the world, one kind that would rather fight than dissimulate, and another kind that would rather dissimulate than fight, the former living in Boston and the latter in Philadelphia. If the Philadelphians of recent years had been described as a lot of people that would rather black the hob-nailed shoes of state's prison convicts than put up a moral fight of any conceivable sort, the description would have been somewhere near the truth. And now, to the unbounded astonishment of mankind, these moral invertebrates have actually turned. A mayor who was supposed to be as innocuous a nobody as could be found within eyesight of William Penn looking down in bronze placidity from the pinnacle of the City Hall, has vetoed a gas corporation steal seventy-five years long, and has begun turning the rascals out of the city departments. To the consternation of the Republican



ring, "public sentiment" has backed up this municipal *Erschingung* with a vigor that has compelled the thieves to fly to their holes. Verily, either the Lord reigneth or the American people, even they that live in Philadelphia, are yet capable of self-government.

As for the preposterous teamsters' strike in Chicago, and its attendant lawlessness, it has been pretty nearly the "trouble" that the business classes of Chicago were "looking for." The country is to be congratulated that they have been getting it. No medicine less drastic could have awakened them to a comprehension of the elemental fact that business men who devote all their energies to their private interests, expecting that civic affairs, including the every-day maintenance of law and order, will take care of themselves, must some day "pay up" for their folly. Chicago is an energetic and "likely" city, and the teamsters' strike, disagreeable as it has been, will have done it no permanent harm. One of these days the hustling and well-to-do Chicagoans will get together and establish a city government that will make life and property as safe "on Michigan's shore" as they now are in Honduras or Sicily.

That a reorganization of the economic structure of society is quietly going on no longer admits of doubt. Thirty years ago the word socialism awakened feelings akin to horror in at least ninety-nine persons out of every hundred that heard or read it. It awakened visions of conflagrations and confiscations. To-day there are thousands of educated men and women, representing all professions, and not a few prosperous business circles, who discuss socialism not only without abhorrence, but with a more or less qualified approval. Two chief causes have contributed to this result. One has been the spread of a more accurate and detailed knowledge of socialistic doctrines, and the growth, consequently, of the ability to discriminate intelligently between the many kinds of socialism. The other has been the absorption of small industrial enterprises by the great trusts, and the destruction thereby of the business independence of men who now, as salaried dependents, are cherishing bitter memories of experiences that "squeezed" them into their present positions. Such men look upon the

public ownership of the means of production with an equanimity that would not have been possible when they themselves enjoyed distinction as capitalistic employers. The public in general, moreover, is beginning to realize that we cannot hope to perpetuate political equality and the reality of republican government if we establish no limit to economic inequality, and impose no check upon the political activity of corporate powers that the State has created.

It has come about, therefore, that the public now finds itself ready to try various experiments in the ownership and control of great economic interests that a generation ago were regarded as given over for all time to the individual. In England and Scotland tramways, the municipal water supply, and lighting facilities have so long been public properties that socialism to this extent has been accepted as the natural order of things. Here in the United States we are moving more slowly. But we are moving, and it is not hazardous to predict that within the next one hundred years not only the great public utilities in cities but also some of the more important means of interstate communication will have ceased to be private businesses. Possibly even the coal mines, and the gold and silver mines, likewise, will have been transferred to State ownership. A more difficult matter, however, will be the public conduct of business undertakings of a different class. The experiment which the State of Kansas is just entering upon of undertaking a State oil refinery in the hope of "knocking out" the Standard Oil Company's monopoly will therefore be watched with the keenest interest. However this particular project may fare, the really important circumstance is that here in the United States we are obviously destined to solve the problem of the practicability or impracticability of socialism, not by any high *a priori* dogmatizing, but by the experimental method. To the extent that we discover by trial that the public management of business "works" satisfactorily, we shall have it. To the extent that we find it impracticable, we shall continue to depend upon individual enterprise. And to this outcome no sensible man can object.

In the lively discussion raised by Mr. Rockefeller's gift to the American Board of Foreign Missions there is conspicuously absent



a note that should by this time have been sounded. There is an unsatisfactory reticence on the part of those unconvinced of the moral propriety of accepting the gift. The reserve seems not to have been prompted by a conviction that the question raised was in itself unwarranted. They have discussed the right of the Board to accept or to refuse the money, but so far as we remember no one has expressed an opinion that Mr. Rockefeller was being injured by the proposed rejection. The apologist who urged that the objection was unfair, in that it condemned the successful individual while upholding the economic system under which his success was possible, was the only person to put forth a plea in behalf of the multi-millionaire. There are undoubtedly persons on more or less intimate terms with Mr. Rockefeller who are satisfied that the methods by which he obtained his vast wealth were honorable. It has not been made apparent that any one else "honestly believes" it to have been gained by fair means.

Consequently, in merely putting themselves on record as understanding that a board of trustees is disqualified for judicial action in such matters, the gentlemen comprising the American Board of Commissioners for Foreign Missions ignored an opportunity to express confidence in the integrity of one conspicuously accused of misconduct. Does this mean that while the Board understood that as a body it had no recourse but to accept the gift, it felt that the moral question was merely handed on? If so, what and where is the tribunal to which such a question should be referred?

Are we to infer that thoughtful men and women, whether privately condemning, or only omitting to make public their confidence in the integrity of Mr. Rockefeller, acknowledge themselves confronted by a case that society cannot judge and deal with? It is incredible that the American people has arrived at such a conclusion. It is impossible not to believe that some plan of procedure is maturing in the minds of those who, restrained by the legal aspect of the case, are yet convinced of their moral obligation to refuse the gift. While anti-Rockefeller Baptists and Congregationalists protest against yet unproffered gifts of "tainted money," it is to be hoped that others are reviewing the situation to better purpose.

What is needed is concerted action by intrepid persons who not only hold themselves ready to dispose of the case of Mr. Rockefeller if the opportunity should be offered them, but who are anxious to create the opportunity. Such a body would be compelled to ask itself whether there exists in the United States to-day a sovereignty transcending that vested for ordinary purposes and occasions in the organs of government, and whether there are cases of wrongdoing that transcend our ability to punish. We have made our laws to extend protection to the innocent and to prescribe punishment for the guilty, but have we no redress, no power to compel obedience when one against whom the most incriminating evidence has been presented flaunts his immunity in our faces? Is there, or is there not, in this country room for a court of morals in which the benefit of the doubt could not clear one suspected but unconvicted of flagrant misdemeanors?

Is there not need in a society of reasonable and fair-minded beings of self-constituted tribunals with powers quite as extensive and final as those of certain extra-legal bodies that have from time to time taken it upon themselves to administer justice? That a Vigilance Committee organized within the forms of law and fearlessly conducted would be unable to deal with moral issues of the kind in question we do not believe. To refuse to recognize institutions supported by "tainted money" is not an illegal proceeding. The limitations imposed upon boards of trustees would not be found adequate to defeat such a movement. A body of determined men and women could as effectually deprive Mr. Rockefeller of the enjoyment of his millions by legitimate and merciful means as could a body of terrorists by cruel and fatal ones. The taking away of the purchasing power of ill-gotten wealth may one day seem an incomparably wiser method of social control than the swift and relentless measures of the mob.

So long as mankind keeps young enough to play, a sporting event of such magnitude and quality as the trans-Atlantic sailing race for the Kaiser's cup will bring its thrill of wholesome pleasure to the breast of every healthy-minded man, and the pride that we feel in American success is quite as worthy, in its way, as our



pride in any other national distinction. The record voyage of the *Atlantic* from Sandy Hook to the Lizard in twelve days and four hours has a further interest, however, which deserves a word of suggestive comment. Why should it not be the beginning of a new joy of recreation to thousands of Americans who love the sea, and who find in an ocean voyage the best of all relaxations after a year of business or professional cares, but who now have to take this pleasure rather sadly in the overcrowded "ram-you-damn-you liner," with its "brace of bucking screws"? Is it not possible that the beauty and romance of the "three-decker" may be brought back to the seas in the three-mast-er? Would it not be a good business proposition to fit out a trans-Atlantic fleet of swift-service passenger schooners for the midsummer recreation season? Thousands of travelers to Europe would infinitely prefer the sailing craft to the steamer, if they could have large, comfortable cabins, and a good table with good service. The cost of such service without the burning of coal, and the maintenance of gigantic and intricate machinery, would be relatively small, and the price of the passenger's ticket could be correspondingly reduced. We believe that an Atlantic passenger service of this kind could be made profitable on terms that would put the ocean voyage, under the most delightful conditions, within reach of thousands of cultivated people of moderate means, who now look upon a trip to Europe almost as the event of a lifetime.

By the time the street urchins of Indiana have surreptitiously smoked the cigarettes thrown out by frightened cigar dealers since the attempt at the enforcement of the anti-cigarette law, a new adjustment between the warring elements there will have been effected. The accruing satisfaction is easily predicted. Of the three parties concerned in the affair, neither the prohibitors nor the prohibited will derive anything like the benefit that will inure to another division of the population. Notwithstanding the climax reached at South Bend, it is not probable that the prohibiting party will achieve in the long run a definite victory. Although in the arrest of the managers of an animal show for allowing a trained ape to break the new statute, it may congratulate itself

upon having accomplished at the outset an unprecedented reform, it is by no means certain that the cigarette habit acquired by trained apes in general has received a serious check. As for the more highly developed anthropoids, whose liberties the new law is meant also to curtail, things are doubtless not so bad as they appear. If there is not wit enough among them to devise successful evasion, conditions in Indiana are grave. If the enforcement of the new statute is not responsible for as many inside or subterranean smoking dens as there are secret barrooms in Maine, the youth of Indiana are lacking in mental faculties hitherto regarded as essential to human progress. With the inventive faculty fully awake, however, there are obstacles to be met that have not yet taxed the ingenuity of the Maine man. The odor of a cigarette is at present as ineradicable as that of a gasoline car. But the obstacle is by no means insurmountable. There was a time when the advantage might be said to be on the side of the automobile. That day is undoubtedly past. Rapid as the strides in the perfecting of motor-machines have been, the odorless cigarette now stands a much better chance of "arriving" than non-odoriferous liquid fuel.

Meanwhile, one object desired in Indiana will have been attained. For at least a breath-taking period the socially significant and really important questions of public welfare have been relegated to a place discreetly remote. At the same time attention is being called from matters which others desire to legislate upon with the least possible interference. It is not necessary to know what specific private enterprises are being promoted by this particular triumph of the politician, in order to have a fairly intelligent idea of the situation. Their identification is a matter of local concern. A larger public would like to know what conditions have brought about this similarity between the social standards of two American commonwealths dissimilar in social composition and general make-up. Why is it that Maine and Indiana, rather than Vermont and Illinois, or New Jersey and Ohio, have been the particular states to suffer arrested progress by reason of the same kind of conflict over minor issues? What causes have brought about such identity of stages of growth at which two social units, apparently so unlike in every way, have been cut short in their re-



spective careers? These are not local but national questions. While the issues of another militaristic period of human experience occupy the minds of the uncritical and the strenuous, is there not some student of social phenomena to start an investigation of the conditions that have made Indiana the scene of the latest "reversion to type" of a people long supposed to be well on the way to a higher plane of development?

The religious campaign scheduled for the opening of summer has been started. There was a time when the danger of a premature and unpremeditated outburst of pent-up emotions threatened to undo the plans of its generals, but in some unaccountable way, and for some mysterious reason, the day of emotionalism was postponed. The first of the great mass-meetings planned for the conversion of New York was held in the Academy of Music on the last Sunday in May. Ten automobiles carrying evangelists, Sunday-school organs and other wind instruments, did band-wagon duty in modern style, and the work of suggestion was otherwise begun. It was an occasion heralded with a commotion scarcely less great than that which announced the coming of Elijah the Third, a year or more ago. "The Wizard of Oz" has nightly filled the same auditorium with a much larger congregation, but the fact seemed not to be discouraging to any one present. From the standpoint of the most deeply concerned, the beginning was an auspicious one. The future of the movement, however, is mainly conjectural, from whatever vantage ground reviewed. Any prediction that fails to include all of the counter-claims upon the attention of so heterogeneous a population as that which dwells in New York City is sure to fall short of prophecy; while failure to allow for the spread of emotionalism in any direction would leave it still less comprehensive. On the one hand, it is difficult to foresee that one more blare of trumpets will divert attention to any startling extent from a thousand other sensations daily offered in so large a city, and, on the other, it is impossible not to feel that sensationalism in general is on the increase. Its spread within the confines of the Protestant Episcopal Church is a phenomenon that, if prophesied five years ago, would have been scoffed at with

exceeding scorn. Nine-tenths of the members of that denomination who now are interested in the revival movement would have repudiated its predicted participation in anything of the kind. Furthermore, it is safe to say that in less than a year from now hundreds of them will be quite as much amazed at the memory of the part they have played in the affair.

Such contagion is greatly to be deplored. The motor types of humanity are at all times too much in evidence to need reinforcement. It is disquieting to think of the falling back of ever so small a percentage of those higher up in the scale of self-control. To observe large numbers of the most conservative members of a population not only inciting but at times actually taking part in the action of a psychological mob, is to be impressed with the fact that the rational man, as an end of civilization, is a long way off. Spencer's complaint that militarism seemed no nearer to extinction than it did in the day of Charlemagne, or a period of equally strenuous relations between man and man, was a pathetic example of failure to take courage from the slow advance actually made toward this ideal. Mr. Spencer's discouragement, however, was not without cause. When thousands of persons, representing an institution that has stood for conservatism in every direction for hundreds of years, adopt the measures of a street crowd, the supremacy of reason and calm-mindedness would seem to have been almost indefinitely retarded.

Moreover, there is a feature of the phenomenon so unusual that its significance can hardly be estimated at this time. It is the peculiar delusion with which this new element in a revival movement has been imbued. Throughout the weeks of preparation for the campaign, it has manifested itself in a series of hallucinations that, while it was impossible for the Episcopal Church to become involved in actual revivalistic demonstrations, the time for taking upon itself the direction of such matters was at hand. "The world is in dire need of redemption from folly; it must be urged with powerful insistence to consider the wickedness of its ways," said this institution to itself. "It is plain to us that the only means to this end is to stir the masses to a realizing sense of their depravity by the one method to which they will respond," said the



Episcopal bishops. And straightway the action was suited to the word. This sudden change of attitude is in itself a bit of emotionalism worthy of profound study. When large numbers of fairly intelligent men and women affirm that the only way to protect the cherished institutions of civilization is by a return to the ideas inculcated by a paternalistic and theocratic government, the things revived by the "revival" are dogmatic emotionalism and the "militarism" of a "tom tom" age.

By comparison with the extraordinary manifestations that Professor Davenport has recorded,<sup>1</sup> the revivals of today are tame affairs. What, then, has become of the old-time revivalistic shouter? Has he gone for good and all into nature's museum of extinct things, or has he, like the cohippus, been evolved into something else? Has he disappeared from the pulpit and the platform to find a function elsewhere? Observation bears out a theory that he has only been transmogrified, perhaps not exactly glorified. We offer for consideration the scientific hypothesis that he may be identified as the modern headline shrieker of the yellow press. The opportunities offered by the printed page are now so much wider than those offered by the platform that great numbers of men with a predilection for public "influence" have drifted naturally from oratory to journalism. They have not thereby entirely changed their natures. The reasoning man continues to reason, the cultivated mind continues to express itself in the language of gentlemen, and the shrieker continues to shriek. And while the new medium, appealing to the mind through the eye, is somewhat more wasteful of emotional voltage than the spoken word, it is by no means destructive. A shriek, well set up in blacksmith type extending across the page, and punctuated with a suitable number of exclamation points, has a startling quality not to be despised. For example, if we compare the impression made by the word "hell" vociferously screamed by a desk-pounding revivalist, and adequately shrieked in black letters four inches high, one is not so vastly inferior to the other as might at first thought be imagined. The great difference lies in the conditions under which the receiving

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<sup>1</sup> "Primitive Traits in Religious Revivals." The Macmillan Co.

mind is impressed. The massing of men and women within a room consecrated to solemnity creates a nervous tension that cannot ordinarily exist in the street-car or on the sidewalk. Moreover, there is something about the personality of the typical news-boy that is less awe-inspiring than that of the black-frocked exhorter. For these reasons, the conversion of the religious shouter into the headline shrieker is a good thing from the point of view of calm-minded men. He continues to blow off his hysteria upon a long-suffering public, but he cannot cause so many or such destructive explosions in the emotional environment. While, therefore, headline shrieking is unpleasant, and in irredeemably bad taste, it may be philosophically welcomed, like many other things not nice in themselves, as an improvement upon earlier forms of conduct that, all in all, were a good deal worse.

Whatever may have been his shortcomings, there is much to be said for the old-fashioned truth-lover convinced that all that is knowable was once and forever revealed, and all that is mysterious hinted at, in a series of books dedicated to humanity, and closed some nineteen hundred years ago. There was a straightforwardness, an absence of any appeal to the abstruse, a directness about him, that we should not fail to appreciate. The supernatural that he preached was to him the natural, the real. While it was quite possible for him to conceive of mind as distinct from matter, and in that respect to indulge in a kind of mysticism which has recently been dispelled, the use of terms unintelligible to himself, or the originating of new combinations such as we find the mystery-loving zealot of the new era of thought delighting in, were no part of his object. Phrases like "the great soul of the world comes home to you and pleads with you to give it incarnation," or that used to designate a drama as "interpreted in the mystic spirit of profoundly human art" would have seemed altogether meaningless to him. He spent his life in trying to account for the old rather than in the attempt to suggest new mysteries of life. The effort to explain them away seemed to him blasphemous and terrible.

Not so with the apostle of the new mysticism. For him the



destruction of the old beliefs has but given room for the growth of others. He was ready to dispense with the old ideas involved in the special creation of the human species, and he has been happy without the thought of the resurrection of the body after death, but the mysterious has not been made less vast or inevitable thereby. Anything original in the line of miracles claims his reverential attention. The "poet" or other "thinker" who is inspired to offer some hitherto unthought-of suggestion of a mystical nature is to him the great man of the day, the leader of "advanced thought." The more difficult to understand the more "compelling" is any suggestion. When a preacher or other prophet of the new school has thought out a felicitous phrase hinting at a combination of unseen forces that "the world's coarse thumb and finger" could never under any circumstances have pointed to, his career has begun. He may achieve passing popularity by making yet more unintelligible the suggested combinations still in favor, but his immortality depends upon his ability to conceive of entirely new ways of hinting at "things incapable of being expressed in terms of the understanding." Were it not for his belief in the "mystery hid under Egypt's pyramid," life to him would scarcely be worth while.

To "know what Rameses knows" is still the far-cry of the mystic. An æsthetic person a long way removed from the realm of the Ptolemies is responsible for the wildest attempt yet made to project the world of occultism beyond its present bounds. In a recent criticism of Hauptmann that person tells us that this "social idealist," unlike his fellow dramatists of less interpretable genius, is of all poets the freest from "intangible imaginings," the one "imbued with the mysticism of sanity and reality." Could anything more awe-inspiring have been invented by the high priest of mystery himself? Verily, the old order of things passeth away.

They do things rather more cleverly in France than elsewhere. Under the bill for the separation of Church and State, all religious holidays were proscribed. The public clamor at this announcement, even in unregenerate Paris, may well be imagined. For, whatever may be its lack of reverence for the dogmas of the Chris-

tian church, the crowd on the Boulevard St. Michel would have been the last to desire the abolition of the festivals and holidays which we are in the habit of supposing that religious institution to have bestowed upon mankind. The dissatisfaction in free-thinking circles in France has been overcome, however, by an amendment that provides for the continuance of the more prolonged of the festival seasons of the church under new names. Easter may now be celebrated as Spring Flower Festival, while Christmas is to be known as the Festival of the Family. The Feast of the Assumption and the Feast of All Saints may be held also under the names Harvest and Memorial festivals. The "spiritual significance" of the occasions is thus discountenanced by the state. M. Gerault-Richard, the originator of the amendment, is to be congratulated upon his achievement. His command of the situation is strategic. To a great majority of the citizens of France the abolition of a single holiday would have been a firebrand tossed in the midst of over-combustible discontent. On the other hand, the enforced observation of the feasts and fast days of the Church of Rome has been to a growing minority in each generation since Voltaire a thing to be repudiated. A hundred years and more of infidelism have ripened also the harvest of unrest, which was responsible for the spontaneous combustion causing the trouble averted by M. Gerault-Richard's amendment.

It is not only the cleverness with which each of these possible conflagrations has been stayed that is to be commended, but the trick itself, the thing that accomplished the result. There is nothing new about it. It is, in fact, a very old trick. Moreover, it is one for which the Church of Rome is itself responsible. As early as the seventh century after the founder of the Christian religion had preached his gospel of universal brotherhood, Saint Columban had begun to prevail upon the people of Gaul to change the names of their feasts and festivals, instead of altogether abolishing them and instituting new dates. A hundred years later, Saint Boniface, having used the same kind of moral suasion with the Franks, betook himself to the German tribes, whom he persuaded likewise to celebrate their pagan festivals under new names. In due time, the old carnival of spring was transformed into Easter,



the winter solstice was forgotten in the new Christmastide, and other significance was given to each of the important seasons of general festivity. In the smaller communities of Saxony, in the little towns of Thuringia, and throughout the villages of the German empire, may yet be observed upon each of the Christian feast days the survivals of the old pagan customs persisting from the time when the sun god, and not the god of the Israelites, was the object of worship. The early Christian church knew how to convert every trace of energy into the kind of power it could utilize.

This extraordinary ability to adapt means to ends is a characteristic of the Church of Rome which it has taken the secular mind a long time to recognize. The substitution of the old pagan festivals of Springtime and Harvest for those recognized by the French Concordat, reversing the order established by Columban and Boniface, is the first attempt on the part of a government to adopt the methods of a brotherhood of men, wise in many ways beyond their day and generation. In the amendment of the bill sharply cutting short old customs held to be vital by every Catholic in France, shall we not see new promise that all that was beautiful and uplifting in the old pagan rites may one day be revived? It may be also that there is new ground for the old hope that, by a gradual and unobtrusive process, the non-essential and the strife-begetting in religion may be eliminated from the world without loss to any man or group thereof.

#### A FEW GOOD BOOKS

Fate, the jester, did her meanest ten years ago, when she tempted the most brilliant literary light of France to put forth a book on "The Bankruptcy of Science." The theses propounded in that transiently famous work were that science, bumptious and iconoclastic, having proclaimed its annihilation of old creeds, and its creation for human thought of a new heaven and a new earth, had already arrived at the confines of knowledge, and that disillusioned mankind must now hark back to the dim religious aisles of mystery and faith. A more instructive case of the gratuitous self-recording of hopeless error has sel-

dom occurred in the whole history of thought. At the very hour when the obscurantists were uttering their "Ah! ha's!" over the discomfiture of science, the most amazing discoveries since inductive science was born were ripening to full demonstration. With bewildering rapidity the announcement of Hertz's discovery of electro-magnetic waves was followed by Moissan's demonstration of the possibilities of the electric furnace, Röntgen's discovery of the X-rays, Rayleigh's and Ramsay's isolation of hitherto unknown rare gases of the atmosphere, and Dewar's liquefaction of hydrogen. These discoveries, had the new knowledge halted there, would have been quite enough to turn the talk about "the bankruptcy of science" into absurdity, but they were only the modest prophecy of what was to come. Becquerel's discoveries in radioactivity, and the identification of radium by M. and Mme. Curie, have transcended every previous contribution to physical knowledge, and have established for all time those new conceptions of matter that in recent years have been slowly taking shape in the most daringly imaginative scientific minds. We now *know*, we no longer merely surmise, that the atom is composed of negatively electric corpuscles, and that it undergoes evolution and dissolution like a solar system. We know that within limits the elements are transmutable, as the alchemists believed, and we know why they fall into classifications by groups and series.

Dr. Robert Kennedy Duncan, Professor of Chemistry in Washington and Jefferson College, has laid the intelligent public under obligation by writing that simple, clear, comprehensive, and well-ordered exposition of "the new knowledge"<sup>2</sup> which was needed at the present moment. He shows a remarkable power to grasp difficult problems, and to make them intelligible to the uninstructed. Indeed, if he possessed also the highest literary gifts, he would take his place in the ranks of such unequalled expounders as Tyndall, Huxley and Kingdon Clifford, for he has their power of making his reader see what he sees. Unhappily, there are errors of taste in his pages, that he ought to rid himself of promptly. The language of religious cant—on the last page, for example—and such quotations as that from Kipling on page 147,

<sup>2</sup> "The New Knowledge." A. S. Barnes & Co.



are out of place in a dignified scientific work. Mr. Duncan is also sometimes careless in his use of terms. A serious example occurs in Chapter III of Part V, where the phrase "inter-atomic energy" obviously should be *intra*-atomic energy. The old chemistry got as far as *inter*-atomic energy, and no farther. The precise thing that the new knowledge reveals to us is the astounding realm of *inter*-corpuscular, that is to say, of *intra*-atomic, energy.

Professor Hugo Münsterberg has published in book form "The Eternal Life,"<sup>3</sup> which first appeared in *The Atlantic Monthly*. This little book must appeal to all—especially if they have lost close friends by death—who have learned to look beyond the bare creeds of the church. Many will read it more than once, for only those having powers of concentration will be able at first to grasp the author's meaning, while the untrained mind will scarcely grasp it at all. To those who see, or who can by this study be made to see, that it is the mind and what that mind did for us, for all whom it reached, the uplifting influence, that is eternal in our friend, this book is full of comfort, and of what is better than comfort—strength. "Will not our friend, who left us in the best energy of his manhood, influence you and me and so many others throughout our lives, and what we gained from his noble mind—will it not work through us further and further, and may it not thus complete much of that which seemed broken off so uncompleted?" . . . "In Eternity lies the reality of our friend, who will never sit with us again here at the fireplace. I do not think that I should love him better if I hoped that he might be somewhere waiting through space and time to meet us again."

Professor Münsterberg helps us to get away from the physical personality that has passed from our view forever, to our real friend, who was not in space and time, in whose world there is no past and future but "an eternal now." He has not tried to solve a mystery, but to help us to see what really is, what we unquestionably have and what some of us might miss but for this strong, friendly hand. His service to those whose friend no longer sits with them by the fire is like that given by Matthew Arnold in

<sup>3</sup> Houghton, Mifflin & Co.

"Literature and Dogma" and "God and the Bible," to those who feared that all was being lost in the winnowing process to which science subjected creeds. Both Arnold and Münsterberg have strengthened our hold upon the things that are and are worth while.

The two lectures on "Marriage and Divorce" which were given by Professor Felix Adler early in the present year before the Society for Ethical Culture of New York City, have been published in book form.<sup>4</sup> Dr. Adler's ideal of marriage is high, but we cannot admit that his reasoning about it is altogether sound. Because he abhors certain present tendencies he quarrels with those who frankly recognize conditions as they are. After referring to the proposition by a celebrated novelist that marriage be experimental, say for a period of ten years, and to the fact that his suggestion has been seriously discussed, he says that "literature is full of the same poison. One finds it in Ibsen; Thomas Hardy reeks with it." A philosopher ought not to call "poison" any proposition that can rationally be discussed. Ibsen and Hardy may be distasteful to the Adler type of mind, but they write of real life and with serious and not unfriendly purpose. To Dr. Adler the idea that marriage, the most intimate of all human relations, should cease when love ceases is "abhorrent and blasphemous." Rightly insisting upon the supreme obligation to maintain and enhance the spiritual life of the world by discharging all one's duty to children and society he pushes his argument far when he refuses to admit, what many equally earnest and sincere seekers for truth believe, that this duty may not always be most completely discharged through continuance in an uncongenial relation.

Of course with such ideas of marriage Dr. Adler does not believe in divorce. Separation in extreme cases, but never divorce; this is his platform. Not even in the event of the breach of the seventh commandment would he tolerate divorce, and if the innocent party to a marriage loveless and made luckless by this breach should be so full of original sin as to secure a divorce, he would not permit remarriage to this innocent. Dr. Adler does not believe

<sup>4</sup> McClure, Phillips & Co.



that happiness is a worthy ultimate aim, but he insists that "life" is. Like metaphysical jugglers in general, he disdains to tell us why we should wish to "live" without happiness. Romantic love he looks upon as a trouble-breeder. In a recent book a young scientist picked his mate with all the cool calculation of a scientific stock-raiser. He was much too scientific to harbor romantic love, and once when going, after a long separation, to see the young woman whom he intended to marry, he prolonged his walk in order to finish his cigar before ringing the bell. The trouble with such marriages is that, sooner or later, even a scientist may meet a woman for whom he would throw his cigar away, and then the danger from fire would be imminent. Not all men are born ready-equipped with spark-arresters.

In "The Governance of England,"<sup>5</sup> Mr. Sydney Low, of Balliol College, Oxford, has done for students of the English system of government a service similar, though not of equal quality or magnitude, to that rendered by Mr. James Bryce in "The American Commonwealth" to those who study the American system. Mr. Low's work is, as his title implies, restricted in range, but it does not lack breadth of view. The reader is often reminded of Walter Bagehot's study of the English Constitution, but no one understood better than Bagehot that the system of government in the Mother Country is in a state of constant development, and if one's reading stopped with the work of even so brilliant and thorough a student and writer as he one would find himself strangely ignorant of later conditions. Mr. Low has kept his strands intact and his historical fabric is running from the loom of the present. It is unfinished, but up to date, like a good newspaper.

The young American wishes to know wherein the English system differs from the American way of running a government; what is meant by the "Cabinet system" and the parliamentary type of government, and to be informed concerning the work of the prime minister and the "Inner Cabinet," a most important body which is as "secret and self-contained," if not as solitary, as an oyster. All of these topics and a score more of equal importance and in-

<sup>5</sup> G. P. Putnam's Sons.

terest are so thoroughly and yet so simply and entertainingly discussed as to make the book valuable both to the average reader and to the serious student. Our conclusion from a reading of this book, as of Mr. Bryce's, is that we still have much to learn from the parental government school. Perhaps none of the unlearned lessons is more important than that of keeping experienced men of proved capacity at the front. In this country, a really able public servant who has outgrown his constituency and offended his "district leader," is in grave danger of being laid on the shelf, while in England, with her more flexible system of election to the Commons, it is not so easy to keep a good man down. And in this, as in many other things, the advantage is with England.

All lovers of the Constitution who appreciate the great work done by Webster in the settling of the United States upon that solid foundation are indebted to Mr. Everett Pepperrell Wheeler for a book which may well become an American classic, "Daniel Webster, the Expounder of the Constitution."<sup>6</sup> And those of the growing generation who do not yet know the obligation that Webster's genius and sturdy patriotism laid upon posterity may learn from this fascinating volume not only how much remained to be done after the adoption of the Constitution, but much of what was done before the national feeling had become so truly a part of our bone and sinew that it carried us through the gravest crises and kept the nation whole. For it was Webster more than any other man who, when American constitutional law was in its formative stage aided the law-making and the law-interpreting bodies in reaching such conclusions as made for unity.

Much space is given to the Dartmouth College case, the United States National Bank and Interstate Commerce, to questions relating to the authority of Congress over territory acquired by the United States from foreign countries, and to the Constitution and slavery. All who have read the life and writings and speeches of Webster will find keen delight in this volume, for Mr. Wheeler has succeeded in presenting in clear outline the essential greatness of the man, the things which have counted from Web-

<sup>6</sup> G. P. Putnam's Sons.



ster's time till now, unmarred by details of the antagonisms which he aroused and often allayed, though some of them have remained to trouble his biographers. The keynote of the "Great Expounder's" thought was that he was the citizen of a nation. Devotion to the Union was the text from which he addressed at least three generations of his countrymen; and his genius was so great that the conviction of citizenship in a great nation with which he inspired the people endured. "It was this conviction," Mr. Wheeler says, "that carried us through the Civil War. Without it our success in that great struggle would have been impossible." A worthy tribute, fully sustained!

Prince Kropotkin's "Russian Literature"<sup>7</sup> gives one more than a general view of the subject, for it contains much of keen literary analysis, but the book is so compact that it can be read with reasonable care in two or three evenings. Kropotkin's style is fascinatingly simple, and this, his latest work, will do much to inform the world respecting the treasures provided by Russian writers. He gives to Pushkin the distinction of having created in a few years the Russian literary language. Pushkin was great in his power of poetical creation, of taking the commonest things, the feelings of the most ordinary persons, and of so relating them that the reader lived them through. No one but Tolstoi has this power to the same extent, and it may be that one must read Pushkin in order to understand the secret of the strength of Tolstoi and Turgenyeff. Lermontoff, who, like Pushkin, died while very young, constantly voiced a splendid protest against all that was ignoble, and he won distinction in both poetry and prose. The later French realists, including Balzac and Zola, owe much of initiation to Pushkin and Gogol, who, with Lermontoff, were the real creators of Russian literature, though it remained for Turgenyeff and Tolstoi to make this literature familiar and popular outside of Russia.

One of Kropotkin's comments on Tolstoi will surprise some of the latter's critics: "I must say that I always felt in reading his works that he is possessed of the most scientific insight that I know

<sup>7</sup> McClure, Phillips & Co.

of among artists. He may be wrong in his conclusions, but never is he wrong in his statement of data. True science and true art are not hostile to each other, but always work in harmony." Of Tolstoi's influence he says that it is not one which may be measured by mere years or decades of years. "Nor is it limited to one country only. In millions of copies his works are read in all languages, appealing equally to men and women of all classes and all nations and everywhere producing the same result. Tolstoi is now the most loved man—the most touchingly loved man—in all the world." It is difficult to see how any who really know Tolstoi through his writings can doubt this last statement. Maxim Gorky is compared to Guy de Maupassant and Bret Harte in the power of his analysis of complicated and struggling human feelings—a great artist, a poet.

In "Dramatists of Today,"<sup>8</sup> Dr. Edward Everett Hale, Jr., has discussed informally and entertainingly the more important work of Rostand, Hauptmann, Sudermann, Pinero, Shaw, Phillips and Maeterlinck. Dr. Hale is a pleasing writer, and his studies of contemporary dramatists are distinguished by insight and discrimination. In judging stories, plays or pictures, most of us "know what we like," and the author frankly acknowledges that we commonly form our opinion on some such basis. It is a good basis, especially if one can tell why he likes a thing, and Dr. Hale can do this in a way at once entertaining and helpful.

Looking over the list of dramatists whose work is discussed, one is at first surprised not to find Ibsen's name, but the reason given for this notable omission is a good one: "To us in America Ibsen belongs to the past or to the future, surely not to the present." True, but the reader who has been charmed by Dr. Hale's clean-cut studies of the men who are still striving must confess to a feeling of disappointment that he has not given us his view of the master who has already reached the goal and who is yet with us in the flesh. It must be that our author has merely postponed his reader's pleasure in respect of Ibsen. In his essay on Bernard Shaw Dr. Hale seems to be playing with his subject,

<sup>8</sup> Henry Holt & Co.



but his tone is friendly, and his fun is, as everything of this nature must be, interesting. The dramas are chiefly considered as literature, but there are interesting discussions of stage performances. The plays considered include "Cyrano de Bergerac," "L'Aiglon," "Magda," "Ulysses," "Letty," and "Iris."

"The Life of Cervantes,"<sup>9</sup> by Albert F. Calvert, beautifully printed by John Lane and having a wealth of illustration, is a gem to be prized by those who have thanked Nature for creating the author of "Don Quixote" and moving his heart to write. The story of the life and work of the great master of Spanish literature is well told, and with such excellent sense of proportion that the reader learns, or refreshes his memory of, the essential things, in the perusal of this small volume. "Don Quixote," perhaps the greatest novel, appeared in Madrid three centuries ago, and set out to conquer the world, and it has conquered. Cervantes was a brave soul in a soldier's body, and though buffeted by fate so that in middle age he had to begin life anew, he never lost his grip. He was at this period, as Calvert says, "The 'captain of his fate,' but attached to no regiment; the 'master of his soul,' but master of nothing else."

Calvert draws a fine picture of the man, his chivalrous spirit and good nature, his carelessness of himself, which made success in any of the usual channels impossible; his untiring industry and high ideals; a generous soul who did his part to make the world happier, and who has found a sympathetic home in every heart open to pathos or humor. The principles by which Cervantes set out to govern his work as a writer were high and he lived up to them. "It is laudable," he said, "for a poet to employ his pen in a virtuous cause. Let him direct the shafts of satire against vice in all its various forms, but not level them at individuals." His splendid humanity was a part of all his work, and at no period was it more in evidence than when, in his old age, he produced the second part of "Don Quixote," thus confounding the deadly enemies who had tried to ruin him by publishing a spurious second part. Calvert writes most interestingly of this incident. The

<sup>9</sup> John Lane.

work includes a choice selection of the proverbs of Cervantes, a chronological list of documents relating to his life, and a bibliography.

Besides the interest of good narrative of cowboy life on ranch and trail, Andy Adams' three books,<sup>10</sup> the "Log of a Cowboy," a "Texas Matchmaker," and "The Outlet," have sociological value. Until a few years ago the driving of cattle from Mexico and Texas northward in vast herds over a perilous country was a necessary and paying enterprise. With the present network of railroads running in every direction over the land, with their facilities for transporting dressed meat, this phase of American industry is becoming a thing of the past, never to be revived. Therefore we welcome these obviously accurate accounts in the light of history no less than in that of fiction.

We are told in the preface of "The Outlet" that at the close of the Civil War the need of a market for the surplus cattle of Texas was as urgent as it was general. Many attempts had been made to get the cattle to the northeast, then the best market, but the Indian and the buffalo, and fever incident to a round-about route, made these experiments unprofitable. At last the railroad and the hide-hunters solved the problem, and the great exodus of Texas cattle began. In 1884 the maximum year's drive was reached, when nearly 800,000 cattle crossed the Red River, bound for the northeast. As Mr. Adams says, "The history of the world can show no pastoral movement in comparison."

"The Log of a Cowboy," the first of Mr. Adams' books, was published in the spring of 1903, the "Texas Matchmaker" followed in May, 1904, and "The Outlet" this year. In neither of the later efforts has Mr. Adams improved greatly upon his first attempt. He restricts himself, and wisely, to depicting three periods of the cowboy's life. The "Log of a Cowboy" is the story of the cattle on the trail. It is a cowboy's account of his first five months' trip from Mexico to Montana with a "drive" of 3,000 cattle. It abounds in thrilling incidents, and shows us the cowboy's duties from the time the cattle are received and branded

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<sup>10</sup> Houghton, Mifflin & Co.



until they are turned over to other hands at the Blackfoot Agency in Montana, and the boys unsaddle their horses for the last time together. In "The Outlet," under the responsible and proud title of "foreman," our same cowboy gives us his experiences with a similar "drive." The "Texas Matchmaker" takes us back to an earlier stage, the cowboy's life on the ranch. It is perhaps too much to say that Mr. Adams has struck a new note in fiction, but he has given us probably the best picture we shall ever have of one of the most characteristic periods of American frontier life. In each volume are six delightful illustrations by E. Boyd Smith, which are as full of local color as the text is.

The story of Mr. Eden Phillpotts' latest and greatest novel is told in the title, "The Secret Woman."<sup>11</sup> Few writers have shown greater skill in portraying the mind and character changes wrought in strong men and women whose lives have been altered by their dependence upon or their relation to persons who, without technical right, have yielded to the elemental passion. We say without technical right, because in the minds of the simple, essentially honest Devon couple, Anthony Redvers, married, and Salome Westaway, single, their right to possess each other so long as no one knew and no one suffered, was as clear and elemental as the instinct which drew them together. And Ann Redvers, wife of Anthony, who never understood him until after she had killed him by knocking him into a well, was a wholesome, honest woman, who had loved her husband and their two sons in the only way she knew. She had never experienced a great passion, and it had not occurred to her that Anthony could feel one away from her. But she found the scrap of paper on which he had written the message to some one to meet him at night at the broom patch on Halstock hill. She went alone to the hill, and the beauty of the scene, flooded by the full moonlight, touched her, made her tender, and she was ashamed of her distrust and thought to confess her momentary jealousy and then leave Anthony to keep his business appointment with some man. But when he came, bearing a great mass of fern, his actions puzzled her and she watched him, fasci-

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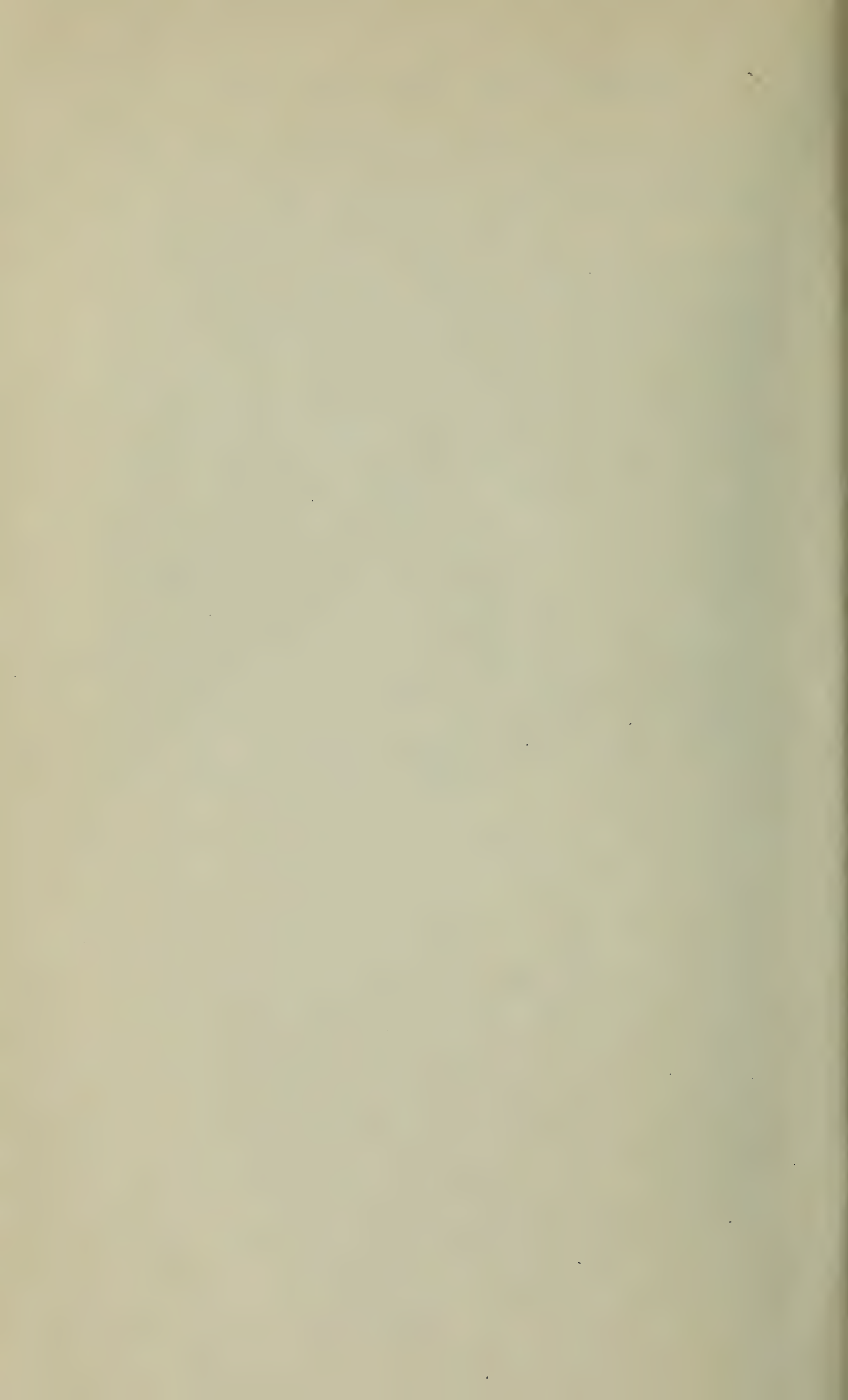
<sup>11</sup> The Macmillan Co.

nated. She heard him whistling "Widdecombe Fair" while he spread the fern as a couch for Salome, who was unrecognized. She heard the couple talking eagerly, happily, and saw them in one another's arms, and then she went away.

Perhaps there would have been no physical tragedy had it not happened that the next day, after Ann told him all that she had seen, and he had told her that he loved her, worshipped her, but that he also loved the "secret woman," he, more broken and troubled than she, because he could feel more, went to the well and—as he always did when his emotions were stirred—whistled the tune of "Widdecombe Fair." And Ann, who had lived to be forty without feeling a great passion, felt it then, and she killed. The story of her son Jesse's passion for Salome, who cared for him only for the father in him, and who by giving him a little hope brought him to his death; of her son Michael's splendid devotion, he being all mother; of Ann's own penance and reconciliation with Salome, are told with very great power. The only characters that did not ripen and sweeten were Anthony and Jesse, father and son, who loved the same woman. They died too soon, and some will think they died because they were essentially so sweet-natured and kind. All readers of Phillpotts are reminded of Thomas Hardy, but Hardy is still the master.

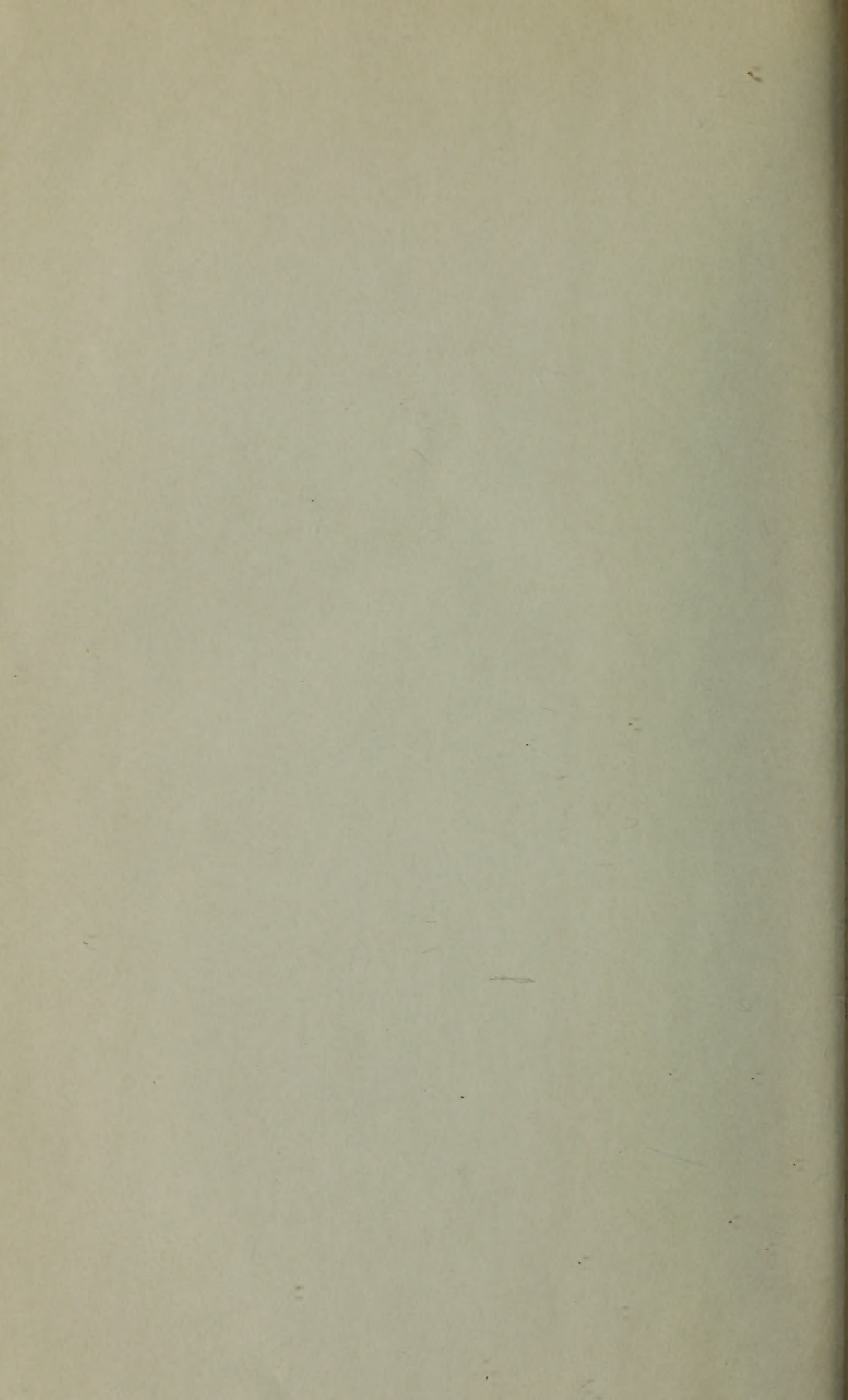














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